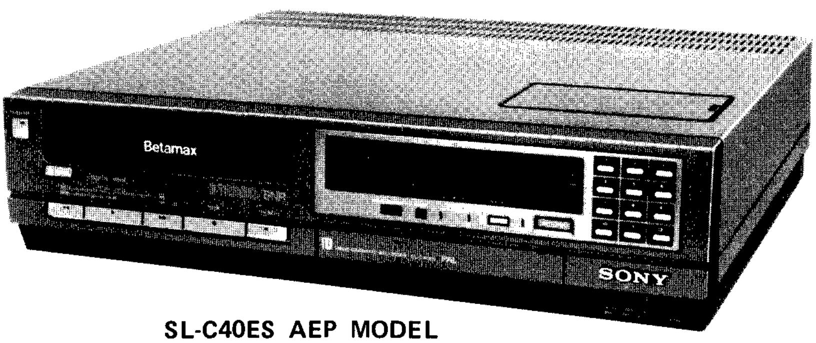
SL-C40ES/C40UB
RMT-216

SERVICE MANUAL

AEP Model
UK Model



SL-C40ES AEP MODEL

September, 1983

711B CHASSIS

Refer to separate adjustment manual, part number 9-972-256-81

SPECIFICATIONS

System

Video recording system	Rotary two-head helical scanning
Video signal	CCIR standards, PAL colour
Aerial input	75-ohm, asymmetrical aerial socket
Zweiton system	Two-carrier system
Channel coverage	VHF : Western European channels E2-12 UHF : Western European channels E21-68 (Up to 12 programmes can be preset.) .... AEP MODEL
Channel coverage	UHF European channels 21-68 (Up to 12 programmes can be preset.) .... UK MODEL
RF output signal	UHF channels E30 to E39 (variable) 75 ohms, unbalanced .... AEP MODEL
RF output signal	UHF channels 30 to 39 (variable) 75 ohms, unbalanced .... UK MODEL

Video

Input	VIDEO IN : BNC connector 1.0 V $^{+1.0}_{-0.5}$ V (p-p) 75 ohms, unbalanced, sync negative
Output	VIDEO OUT : BNC connector 1.0 V (p-p) ±0.1 V (p-p) 75 ohms, unbalanced, sync negative
Horizontal resolution	260 lines
Signal-to-noise ratio	Colour : Better than 40 dB B/W : Better than 43 dB

Audio

Input	AUDIO IN : phono jacks 47 kilohms, −10 dBs (0 dBs = 0.775 V rms)
Output	AUDIO OUT : phono jacks Load impedance less than 10 kilohms −10 dBs with 47 kilohms load, unbalanced
Frequency response	50 Hz to 10 kHz
Signal-to-noise ratio	Better than 43 dB (BNR ON)
Audio distortion	Less than 4% at 400 Hz

Video/Audio

Output	AV: 6-pin DIN connector

Tape transport

Tape speed	18.73 mm/sec.
Maximum recording time	2 hours 10 min. (with Sony L-500 cassette) 3 hours 15 min. (with L-750)
Fast forward/rewind time	Within 5 min. (with L-500)

Timer

Clock	Crystal lock
Time indication	24-hour cycle
Timer setting	Only for recording 2 events/week, adjustable for any day or for all 7 days of the week
Power back-up	Back-up duration of 3 minutes minimum at one time

– Continued on next page –

Beta
VIDEO CASSETTE RECORDER
SONY®

MICROFILM

Consumer
VIDEO

General

Power requirements	220 V ac ±10%, 50/60 Hz .... AEP MODEL 240 V ac ±10%, 50/60 Hz .... UK MODEL
Power consumption	44 W
Storage temperature	−20°C to +65°C (−4°F to +149°F)
Operating temperature	5°C to 40°C (41°F to 104°F)
Dimensions	Approx. 430 × 105 × 360 mm (w/h/d) (17 × $4\frac{1}{4}$ × $14\frac{1}{4}$ inches) including projecting parts and controls
Weight	Approx. 10 kg (22 lbs 1 oz) net

Accessories supplied

75-ohm coaxial cable for recorder to TV connection	1
Remote Commander RMT-216 with two IEC designation R6 batteries	1
RF channel adjustment tool	1

Design and specifications subject to change without notice.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

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SECTION 1
GENERAL

1-1. PRECAUTIONS

On safety

- This unit operates on 220 V ac, 50/60 Hz.
- Should any solid object or liquid fall into the cabinet, turn off the unit and have it checked by qualified personnel before operating it any further.
- To disconnect the mains lead (ac power cord), pull it out by the plug. Never pull the lead itself.

On installation

- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation grille.
- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- The unit is designed for operation in a horizontal position. Do not install it in an inclined position.
- Keep the unit and cassette tapes away from equipment with strong magnets, such as a microwave oven, large loudspeakers, etc.

On operation

- When the unit is not to be used for a long period, turn the power off to conserve energy and to extend the useful life of your unit.
- Remove and store video cassettes after recording or playback.

On cleaning

Clean the cabinet, panel and controls with a dry soft cloth. Do not use a moistened cloth or any type of solvent, such as alcohol or benzine, which might damage the finish.

On repacking

Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it as illustrated on the carton.

On colour broadcasting systems

This machine is designed to record and playback using the PAL colour standard. Recording and playback of video sources based on other colour systems cannot be guaranteed.

If you have any questions about this unit, contact your Sony dealer.

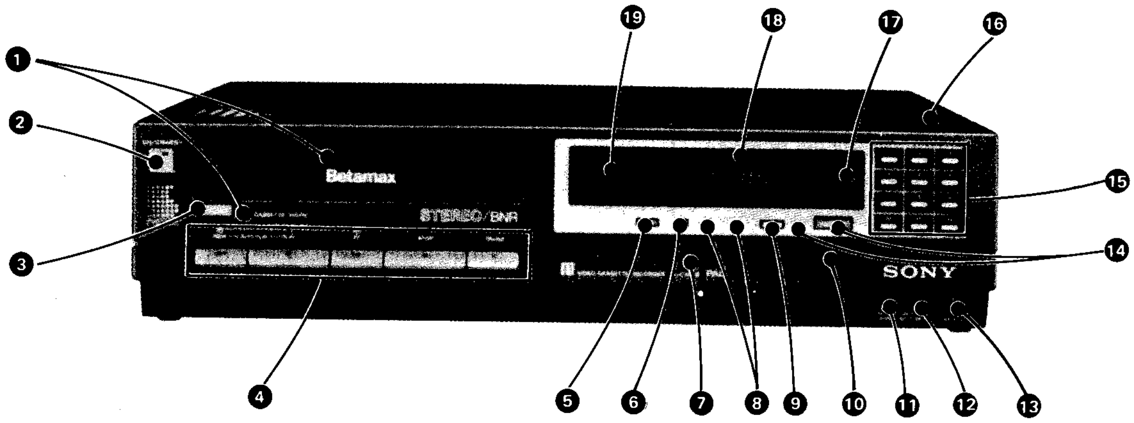
SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

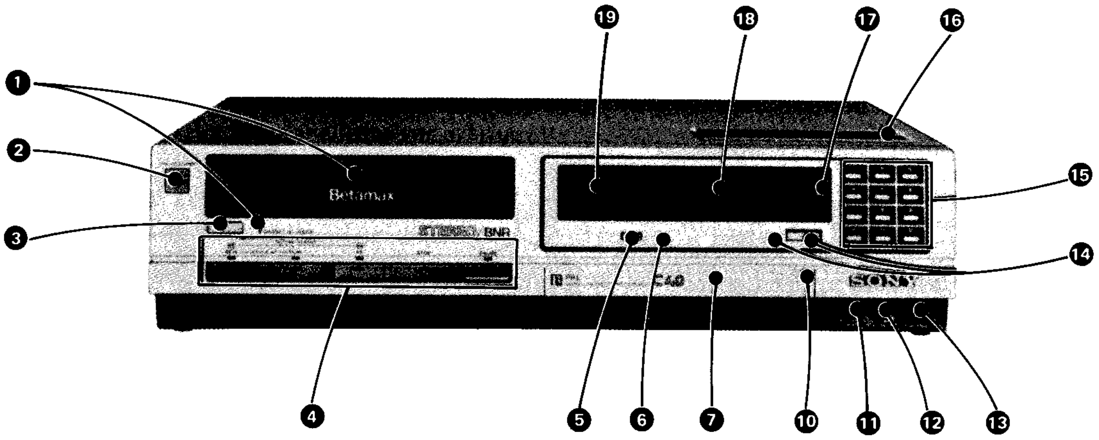
1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

1-2. LOCATION AND FUNCTION OF CONTROLS

Front (AEP MODEL)



(UK MODEL)



❶ Cassette compartment and CASSETTE INSIDE lamp
Insert a cassette after turning on the recorder. The lamp lights up when a cassette is inside.

❷ ON/STANDBY button and lamp
Press to turn on the unit. The lamp will light up. Press again to turn it off.
The timer section will continue to operate and the time will be displayed even if the ON/STANDBY button is off so long as the ac power cord is connected to the wall outlet.

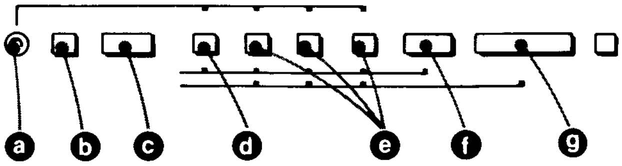
❸ EJECT button
Press to remove the cassette. This button does not function when the recorder is turned off.

❹ Function buttons
▶ PLAY button : Press to play the tape back.
◀◀ REW button : Press to rewind the tape. Also used for the reverse picture search and skip scan operation.
▶▶ FF button : Press to advance the tape rapidly. Also used for the forward picture search and skip scan operation.
■ STOP button : Press to stop the tape.
❙❙ PAUSE button : Press to stop the tape for a moment during recording or playback. A still picture will be seen during playback. Press again to release the pause mode.

❺ TIMER/COUNTER button
Press to set the display to the tape counter. To reset to clock, press it again.

❻ COUNTER RESET button
Press to set the tape counter reading to "0000".

❼ Timer setting section (behind the front panel)



- a **CLOCK SET button :** Press to set the clock.
- b **CLEAR button :** Press to clear the timer programme memorized.
- c **TIMER SET button :** Press to set the turn-on/off time of a recording.
- d **DAY button :** Press to set the turn-on day of a recording.
- e **HOUR, 10 MIN and MIN buttons :** Press to set the turn-on/off time of a recording.
- f **PROG button :** Press to select the TV programme to be recorded by the timer.
- g **TIMER REC button :** Press to set the recorder in the timer recording stand-by mode.

❽ STEREO A, B lamps (AEP MODEL ONLY)
When a stereo TV programme is being received, both indicators light up. When a bilingual programme is being received, either the A or B indicator lights up. These indicators do not activate when a pre-recorded stereo or bilingual tape is played.

⑨ BILINGUAL select button (AEP MODEL ONLY)

Selects the language of the bilingual TV programme.

⑩ TV/VTR select button and VTR lamp (behind the front panel)

This button is operable when a TV is connected to the recorder's AV connector.

To view a TV programme selected by a programme select button on the recorder or to monitor the picture being recorded, press this button so that the VTR lamp lights up. When the PLAY button on the recorder is pressed, the recorder is automatically set in the VTR mode. To view a TV programme in the usual manner, press this button so that the lamp goes off. When the recorder is turned off, the recorder is automatically set in the TV mode.

⑪ BNR (Beta Noise Reduction) switch

In recording: The sound is recorded with the BNR system on regardless of the position of this switch.

In playback: For a tape recorded with the BNR system on, set the BNR switch to ON. For a tape recorded on another recorder which does not have a BNR switch, set the switch to OFF.

⑫ INPUT SELECT switch

Select the programme to be recorded.

LINE : for recording signals connected to the VIDEO IN and AUDIO IN jacks

TUNER : for recording TV programmes

⑬ TRACKING control

If streaks or snow appears during the playback of a tape recorded on another recorder, turn this knob to obtain the best possible picture.

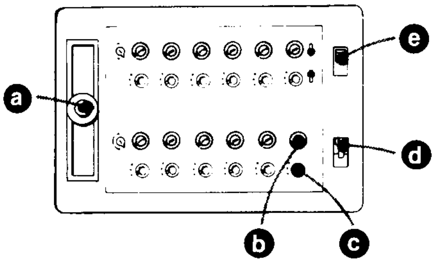
⑭ RECORD button and lamp

Press to start recording. The lamp will light up.

⑮ Programme select buttons

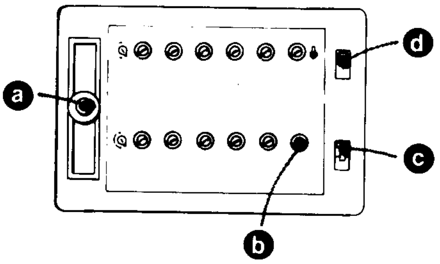
Select the number of the programme to be recorded or to be viewed. The selected programme number will appear in the display window.

⑯ Tuning compartment (AEP MODEL)



- a **Tuning aid :** Use to select the band and to turn the tuning control. The indication at its end shows the approximate position within the selected band.
- b **Tuning control :** With the supplied tuning aid, turn until the desired station is properly tuned in.
- c **Band-select switch :** Using the supplied tuning aid, set to V_L (channels E2 through E4), V_H (channels E5 through E12), or U (channels E21 through E68) according to the channel to be tuned in.
- d **AFT switch :** When the tuning compartment is closed, the automatic fine tuning circuit locks in the signal and maintains a sharp picture.
- e **TEST SIGNAL switch :** Set to ON to obtain a test pattern.

⑯ Tuning compartment (UK MODEL)

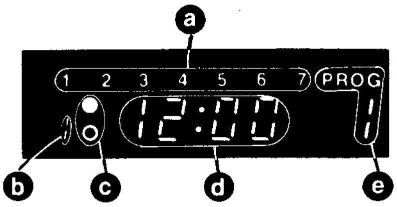


- a **Tuning aid :** Use to turn the tuning control. The indication at its end shows the approximate position of the station tuned in.
- b **Tuning control :** With the supplied tuning aid, turn until the desired station is properly tuned in.
- c **AFT switch :** When the tuning compartment is closed, the automatic fine tuning circuit locks in the signal and maintains a sharp picture.
- d **TEST SIGNAL switch :** Set to ON to obtain a test pattern.

⑰ TIMER REC lamp

Lights when the TIMER REC button behind the front panel is pressed to set the recorder in the stand-by mode. It remains lit till the timer recording is finished.

⑱ Display window

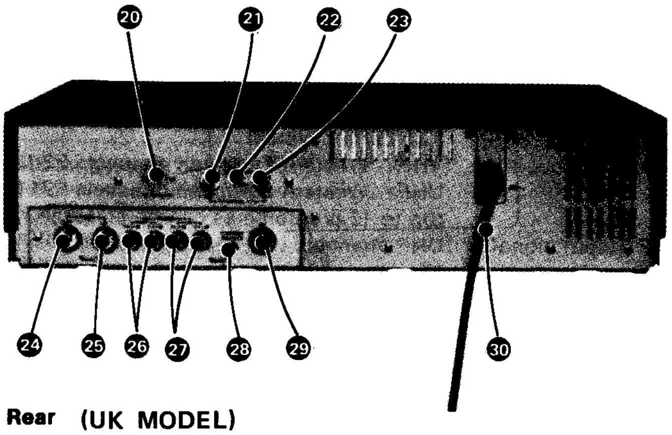


- a **Day of the week indication :** Shows the day of the week on which the timer-activated recording will take place.
- b **Event number**
- c **Turn-on and turn-off setting indications :** The "●" mark shows you are setting the turn-on time and the "O" mark shows the turn-off time.
- d **Time and counter display :** Usually shows the present time. When the TIMER/COUNTER button is pressed to COUNTER, the display shows the counter number.
- e **Programme number :** Shows the programme number selected with the programme select buttons. When the INPUT SELECT switch is set to LINE to record signals from the VIDEO IN and AUDIO IN jacks, the indication will change to "AU".

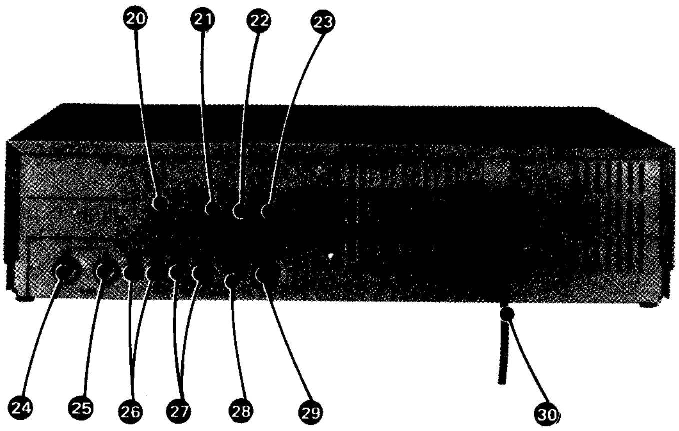
⑲ REMOTE SENSOR

Detects the remote control signal transmitted from the supplied remote control unit.

Rear (AEP MODEL)



Rear (UK MODEL)



⑳ RF CHANNEL screw
If there is interference on the factory preset channel for RF output and the signal of this recorder unit cannot be displayed clearly on the TV screen, adjust this screw with the supplied screwdriver.

㉑ AERIAL OUT socket
Connect the aerial input of the TV receiver using the supplied cable.

㉒ DX/LOCAL switch
Normally set this switch to DX. If the TV signal is very strong, set the switch to LOCAL.

㉓ AERIAL IN socket
Connect the aerial cable.

㉔ VIDEO OUT jack (BNC type)
Connect to the video input of another video cassette recorder or a video monitor.

㉕ VIDEO IN jack (BNC type)
Connect to the video output of a camera, another video cassette recorder, etc.

㉖ AUDIO OUT jacks (phono type)
Connect to the audio inputs of a video monitor or a video cassette recorder.

㉗ AUDIO IN jacks (phono type)
Connect to the audio outputs of a camera or another video cassette recorder.

㉘ CAMERA REMOTE jack (special mini jack)
For camera recording, connect an ac adaptor to this jack.

㉙ AV connector (6-pin, DIN)
Connect to the 6-pin or 8-pin DIN connector of a TV receiver or colour monitor. This connector provides the video and audio output signal.

㉚ AC mains lead

1-3. ADJUSTING THE TV

One of the television channels must be adjusted to receive the signal from the recorder.

1 After making the connections, press the ON/STANDBY button.
2 Make sure that the recorder is in the stop mode and the TV is in TV mode.
3 Set the TEST SIGNAL switch in the tuning compartment of the recorder to ON.
4 Turn on the TV and select a channel which is not being used to receive a TV station. Tune the channel until you see a clear black and white pattern on the TV screen and you hear a continuous tone. This is the recorder's test signal.

- Note that the test signal is transmitted on a channel between UHF channels 30 and 39.

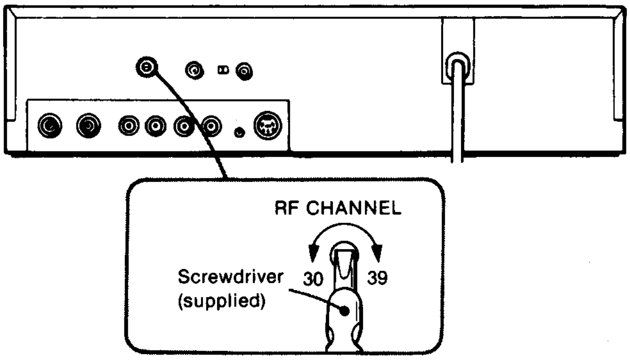
If the test picture is free of disturbance, the TV adjustment is complete. Set the TEST SIGNAL switch to OFF.
If the test picture is not free of disturbance, proceed with the next adjustment.

> Whenever you use the video recorder, you should set the TV to the channel selected in this adjustment.

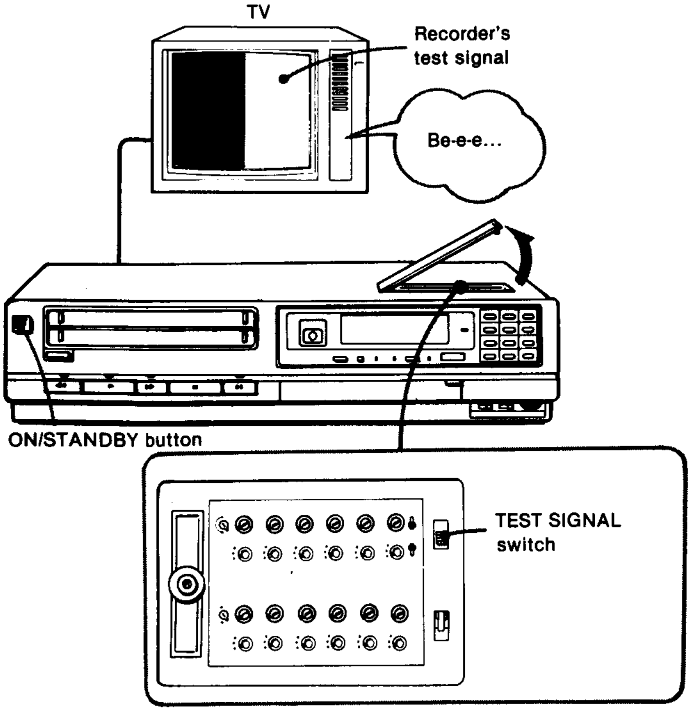
—If you are not sure how to adjust your TV, please refer to the TV's instruction manual or consult your dealer.

If the test picture is not free of disturbance

1 Reset the TEST SIGNAL switch to OFF.
2 Adjust the channel of the TV to a channel between UHF channels 30 and 39 with the tuning control or the fine tuning control on the TV, so that the TV screen shows no picture and so that a steady rustling sound or no sound is heard.
3 Set the TEST SIGNAL switch to ON again.
4 Slowly turn the RF CHANNEL screw on the back of the recorder with the supplied screwdriver, until you see an undistorted test picture on the TV screen.
5 Now the TV adjustment is complete. Reset the TEST SIGNAL switch to OFF.



(AEP MODEL)



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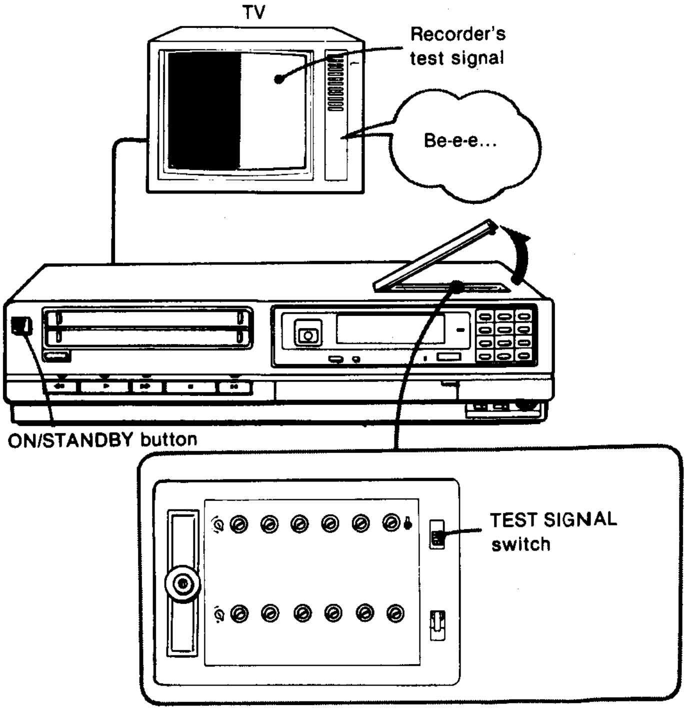
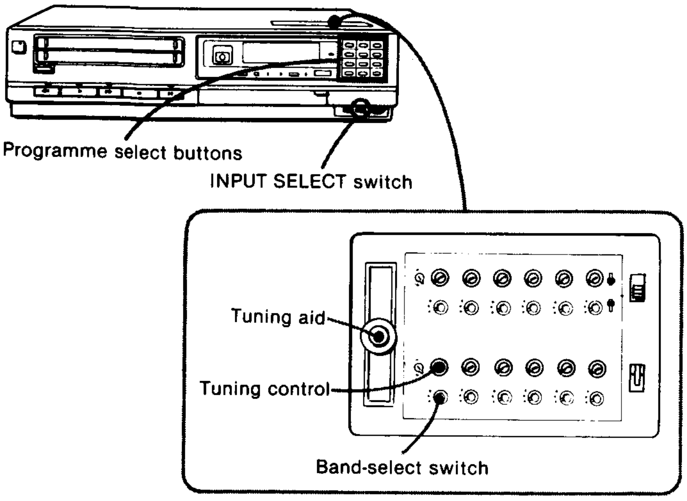


1-4. TV STATION PRESETTING

(AEP MODEL)

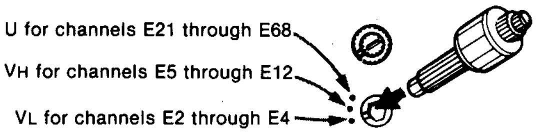
Once you have tuned your TV to the recorder, the next step is to tune the recorder to all the TV stations that you can receive in your area. Up to 12 TV stations can be preset in any order.


Programme select buttons
INPUT SELECT switch
Tuning aid
Tuning control
Band-select switch

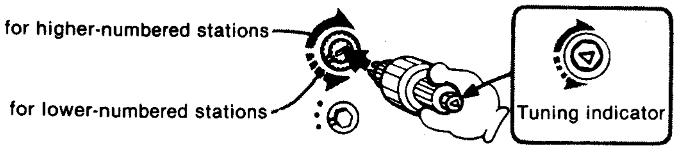
PRESETTING PROCEDURE

Make sure that your TV is set to display the picture from the recorder.

1 Set the INPUT SELECT switch to TUNER.
2 Press the programme-select button to be preset.
3 Open the tuning compartment and, using the supplied tuning aid, set the band-select switch corresponding to the selected programme number to one of the three positions :


U for channels E21 through E68
VH for channels E5 through E12
VL for channels E2 through E4

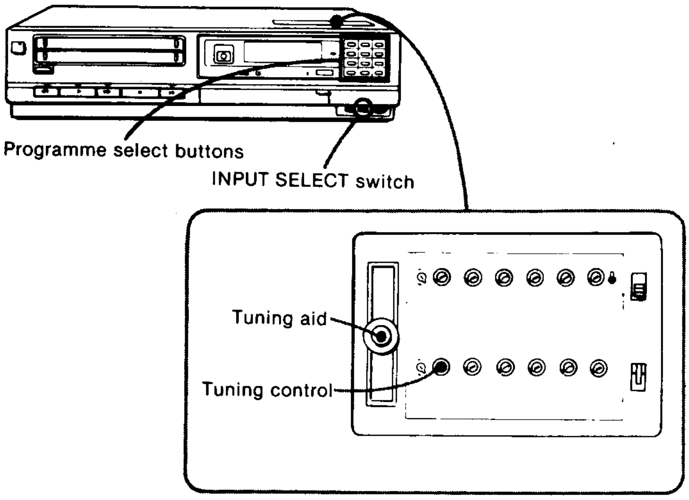
4 Using the other side of the tuning aid, turn the tuning control until the desired station is properly tuned in.
The indicator on the top of the tuning aid shows the approximate position in the selected band.


for higher-numbered stations
for lower-numbered stations
Tuning indicator

If you keep turning the tuning control clockwise, you will again get to the lowest-numbered station within that band.

(UK MODEL)

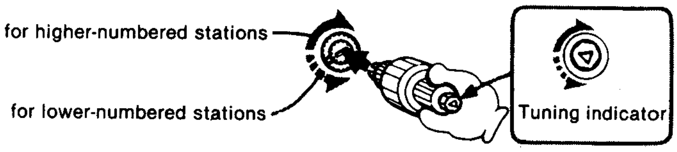
Once you have tuned your TV to the recorder, the next step is to tune the recorder to all the TV stations that you can receive in your area. Up to 12 TV stations can be preset in any order.


Programme select buttons
INPUT SELECT switch
Tuning aid
Tuning control

PRESETTING PROCEDURE

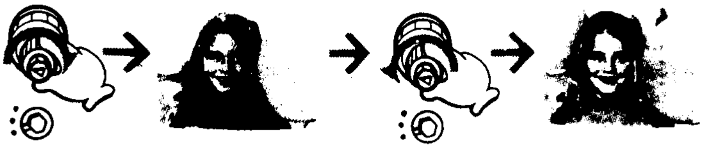
Make sure that your TV is set to display the picture from the recorder.

1 Set the INPUT SELECT switch to TUNER.
2 Open the tuning compartment.
3 Press the programme-select button to be preset.
4 Using the tuning aid, turn the tuning control until the desired station is properly tuned in.
The indicator on the top of the tuning aid shows the approximate position.


for higher-numbered stations
for lower-numbered stations
Tuning indicator

If you keep turning the tuning control clockwise, you will again get to the lowest-numbered station within that band.

When the picture appears, slowly turn the tuning control to the right until a herringbone pattern appears in the coloured part of the picture, then turn the control back until the picture is perfectly clear.
To identify the stations, consult a newspaper or TV programme guide.



5 Repeat steps 2, 3 and 4 for all the other stations.(AEP MODEL)
5 Repeat steps 3 and 4 for all the other stations.(UK MODEL)
6 Close the tuning compartment.
AFT (automatic fine tuning) circuit then locks in the signal and maintains a sharp picture.

After presetting the TV stations, you can use the programme select buttons of the recorder to tune in a station for viewing as well as recording.

1-5. CLOCK SETTING

When you connect the mains lead to a wall outlet, the clock indicates "0 : 00" with the two dots blinking.

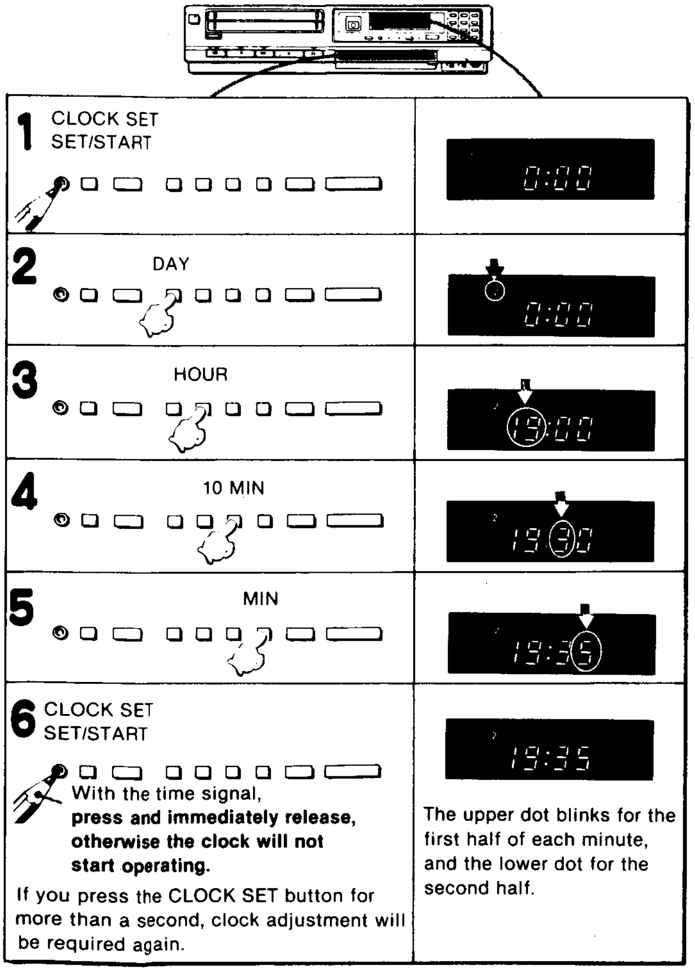
Example : To set the clock to 7 : 35 p.m. (19 : 35) on Tuesday*

*** Time indication**

AM				PM					
12:00 (midnight)	1:00		11:00	12:00 (noon)	1:00	2:00		10:00	11:00
↓	↓		↓	↓	↓	↓		↓	↓
0:00	1:00	.....	11:00	12:00	13:00	14:00	.....	22:00	23:00

Day indication

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
↓	↓	↓	↓	↓	↓	↓
1	2	3	4	5	6	7



With the time signal, **press and immediately release, otherwise the clock will not start operating.**

If you press the CLOCK SET button for more than a second, clock adjustment will be required again.

The upper dot blinks for the first half of each minute, and the lower dot for the second half.

The DAY, HOUR, 10 MIN and MIN buttons can be pressed in two ways :

When you hold a button down, the digits will advance continuously until the button is released.

When you press and immediately release a button, the digits will advance by one.

Zero second adjustment

Press the CLOCK SET button quickly (less than a second).
While the upper dot is blinking, the clock is set to the time displayed 00 second. For example, if the clock time is 7 : 30, 20 seconds, it is set to 7 : 30, 00 second.
While the lower dot is blinking, the clock advances one minute and is set to the time displayed 00 second. For example, if the clock time is 7 : 30, 40 seconds, it is set to 7 : 31, 00 second.

If you press the CLOCK SET button for more than a second, "0 : 00" blinks to show that the clock adjustment is required again.

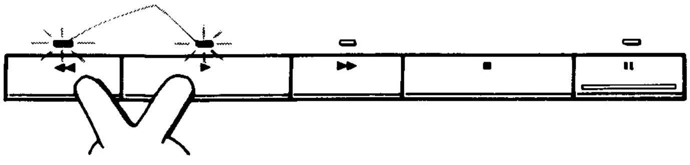
When power has been interrupted for more than 3 minutes, the time indication "0 : 00" blinks, showing that the clock must be reset.
If power has been interrupted for less than 3 minutes, the displayed time remains correct.

1-6. AUTO PLAY

To playback from the beginning of the tape after rewinding

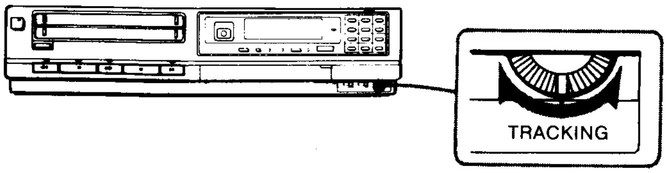
Press the ▶ PLAY button and ◀◀ REW button simultaneously in the stop mode. The lamps above these buttons blink alternately during rewinding.
After the tape is completely rewound, it will be automatically played back.

The two lamps blink alternately.



When playing back a tape recorded on another machine

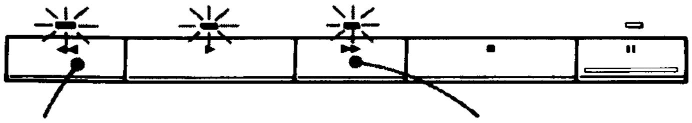
If streaks or snow appears, adjust the TRACKING control for the best possible picture.
Return the control to the centre position after playing back the tape.



1-7. TO SEARCH FOR A PARTICULAR SCENE

Picture search Viewing the picture at fast speed to find a particular scene

During playback



Keep ◀◀ pressed for high-speed reverse picture.

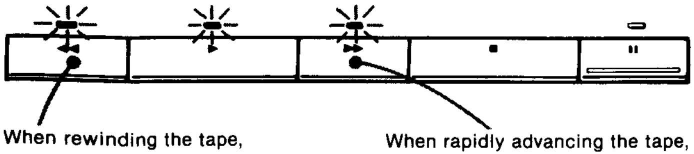
Keep ▶▶ pressed for high-speed forward picture.

Release the button at the desired point.
Normal playback will resume.

The picture search mode can also be started directly from the pause mode.

Skip Scan Viewing the picture momentarily during fast-forward or rewind

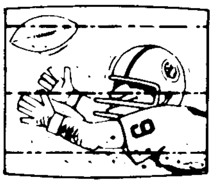
During rewind or fast forward mode



When rewinding the tape, keep ◀◀ pressed for high-speed reverse picture.

When rapidly advancing the tape, keep ▶▶ pressed for high-speed forward picture.

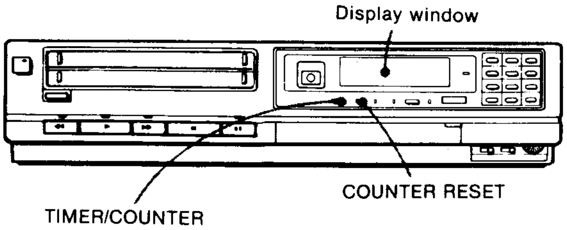
Release the button at the desired point.
The normal rewind or fast forward mode will resume.



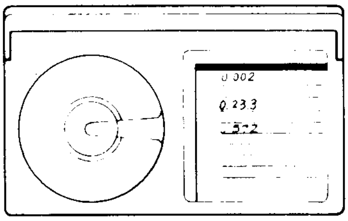
Streaks will appear during the picture search, the skip scan and the pause modes.

1-8. USE TO THE TAPE COUNTER

Turn on the power and press the TIMER/COUNTER button to display the counter reading in the display window.
To return the display to the present time, press the TIMER/COUNTER button again.



Before starting recording or playback, press the COUNTER RESET button to set the counter to "0000".
By noting the counter reading at the desired point, you can easily find that point later by referring to the counter.



Write the counter readings you want to remember on the label of the cassette.

Normal rewinding will stop at the tape counter's "0000" position.
To rewind the tape further, press the ◀◀ button again.
With automatic rewinding from the tape end or for "auto play", the tape will not stop at the counter's "0000" position.

Notes

- The counter reading is automatically reset to zero when a cassette is newly inserted.
- While the power is off, the display shows the present time, regardless of the TIMER/COUNTER setting.
- The counter reading will be retained in the memory even after the power is turned off, as long as the cassette is in the cassette compartment.
- The tape counter does not operate when a blank, unrecorded tape is played.

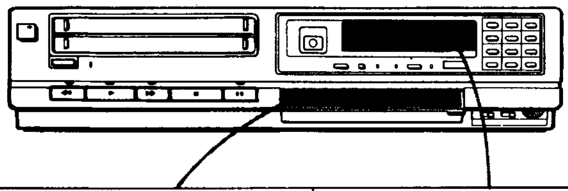
1-9. TIMER-ACTIVATED RECORDING

You can make one or two recordings within 7 days even when you are not at home. These recordings are identified as event 1 or event 2.

Check before setting the timer
- Is the clock set to the correct day and correct time? Timer setting can only be made after the clock has been set.
- Is a cassette inserted in the recorder?
- Is the cassette long enough to record the programmes?
- Does the cassette have a safety tab on the bottom?
- Is the INPUT SELECT switch set to TUNER?

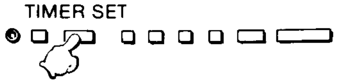
Note: The timer cannot be set during recording, playback, or when the INPUT SELECT switch is set to LINE (The "AU" appears on the display window.).

Example: To record a PROG 2 broadcast from 9 : 00 AM to 11 : 25 AM on Friday for event 1.



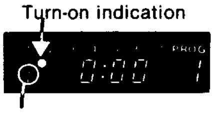
Button to be pressed. | **Time display**: The segment to be set will blink.

1



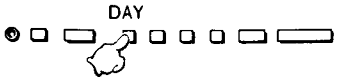
If the recorder is off, it will be turned on automatically.

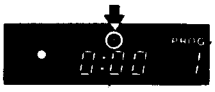
Turn-on indication



Shows the event number. Event 1 always appears first.

2 Select the turn-on day.

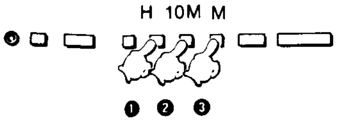


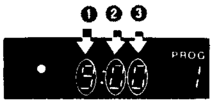


Indication changes as follows :

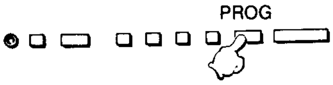
1234567 (everyday) → 1 (Monday) → 2 (Tuesday)... → 7 (Sunday)

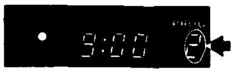
3 Set the turn-on time.





4 Select the programme to be recorded.

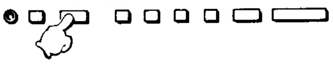




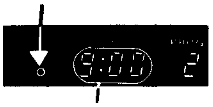
For a bilingual programme, select the language to be recorded.

BILINGUAL
⊏B ☐
⊏A

5

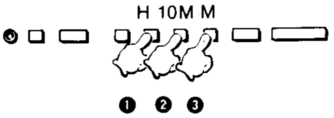


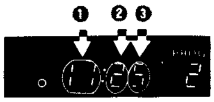
Turn-off indication



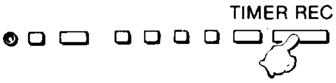
Blinks.

6 Set the turn-off time.





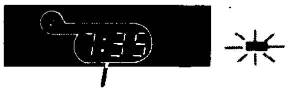
7



TIMER REC lamp lights up and the power is turned off.
At the preset turn-on time, recording will start automatically and will stop at the preset turn-off time.

If the inserted cassette is at its end or does not have the safety tab, the cassette will be automatically ejected.

TIMER REC



Present day and time

ONCE THE TIMER REC LAMP HAS LIT UP, NO FUNCTION OF THE RECORDER CAN BE ACTIVATED, except for checking the timer setting.
To operate the recorder after setting the timer for recording, press the TIMER REC button so that the TIMER REC lamp goes off. To reactivate the timer recording standby mode, be sure to press the TIMER REC button again.

To record to the end of the tape

Set the turn-off time to a time after the tape will reach its end.

If the tape reaches the end during the timer recording

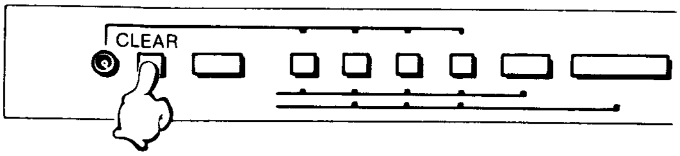
The recording will stop and the tape will be rewound to the beginning. Then after about a second, the recorder will be turned off.

To stop the on-going timer recording

Press the TIMER REC button so that the TIMER REC lamp goes off. The unit will be turned off automatically after about a second.

To erase the setting of an event

1. Press the TIMER SET button to display the event to be erased.
2. Press the CLEAR button. This event will be erased from the memory.



When a power interruption occurs before or during timer recording

If the clock shows "0 : 00" and the dots blink
All the timer settings have been erased. Reset the clock time and the timer settings.

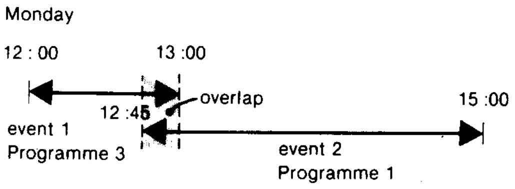
If the clock still shows the correct time but the dots blink
The power has been interrupted for less than 3 minutes.
The timer programmes are retained in the memory and the on-going timer recording will resume when the power is resupplied.
To stop the blinking, press any button in the timer-setting compartment.

ERROR INDICATIONS

If the ● and ○ indications as well as the event numbers blink when the TIMER REC button is pressed...
It means that the setting of these events overlap. Check the settings and eliminate the overlap.

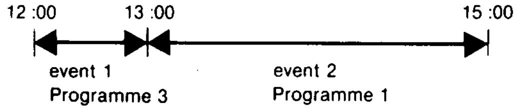
Example :

Timer setting



Even with this error indication, recording can be made.
In this case, the first preset recording continues to its turn-off point and then the next recording begins.

Realized recording



If the turn-on time of the 2 events is the same, recording of event 1 will be made.

TO CHECK THE TIMER SETTING

Press the TIMER SET button. Each time you press the button, the indication will change as follows :

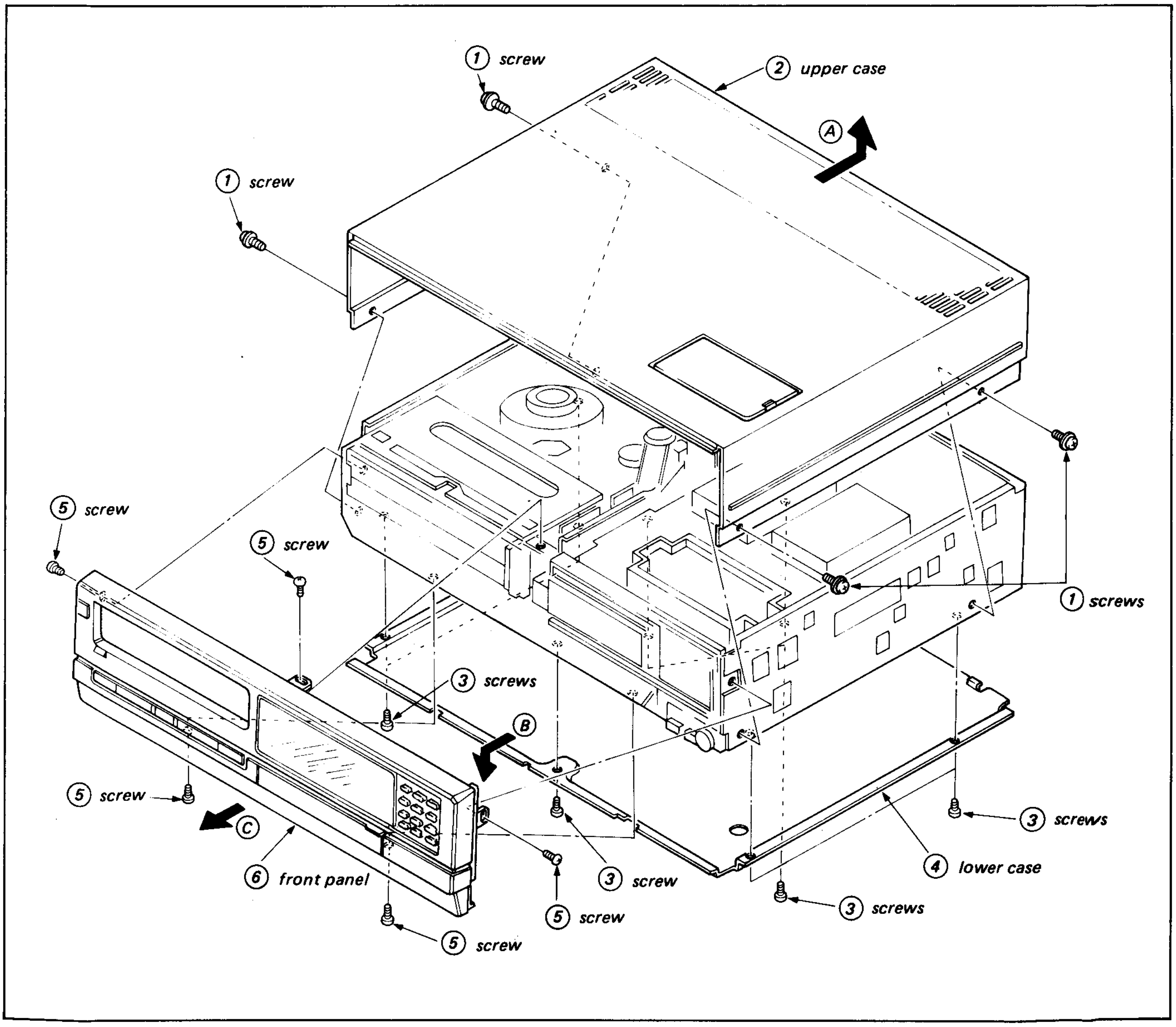
Example : Both event 1 and 2 have been programmed.
Turn-on day and time of event 1 → Turn-off day and time →
Turn-on day and time of event 2 → Turn-off day and time →
Present time

During actual timer recording, only the turn-off time of the event being recorded can be checked.

SECTION 2
DISASSEMBLY

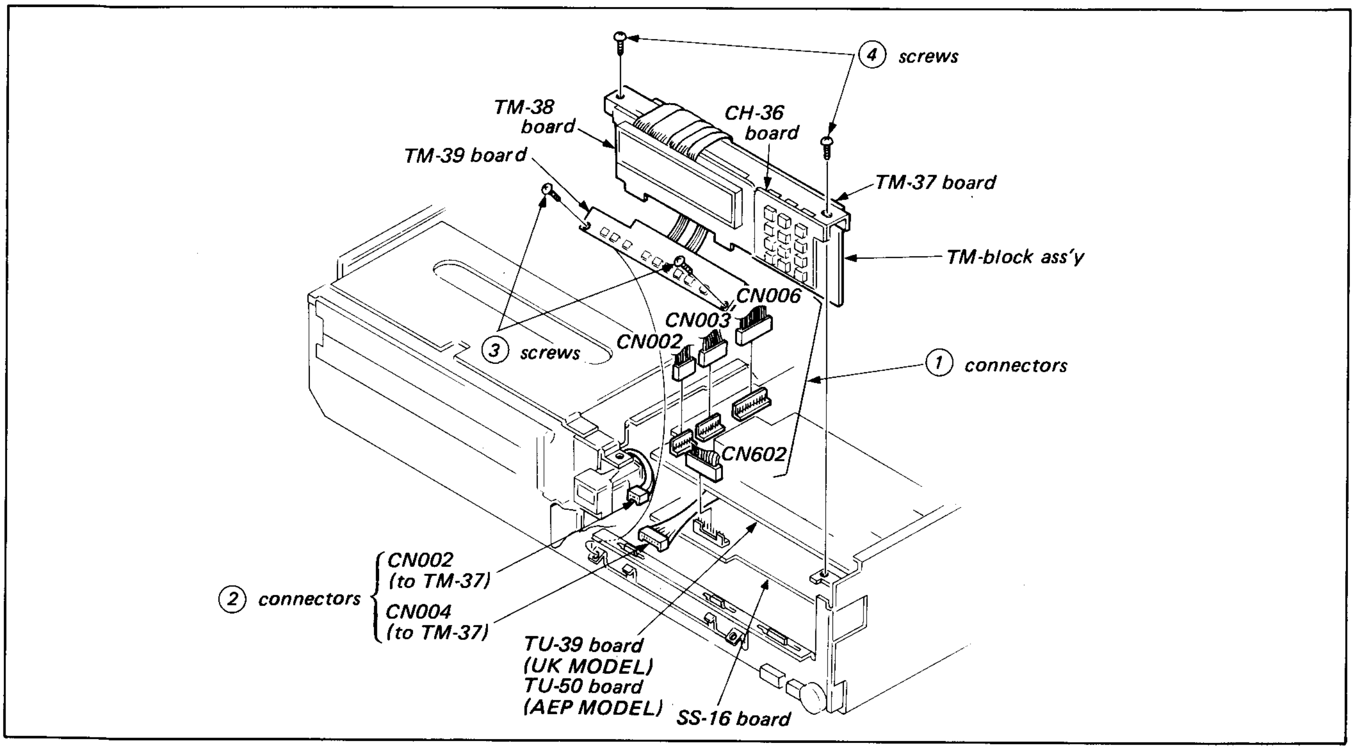
2-1. REMOVAL OF THE CASE AND FRONT PANEL

1) Remove the four screws ①.
2) Remove the upper case ② in the direction shown by the arrow Ⓐ.
3) Remove the seven screws ③ and the lower case ④ in the direction shown by the arrow Ⓑ.
4) Remove the five screws ⑤ and the front panel ⑥ in the direction shown by the arrow Ⓒ.


① screw
② upper case
Ⓐ
① screw
⑤ screw
⑤ screw
① screws
③ screws
Ⓑ
⑤ screw
Ⓒ
⑥ front panel
③ screw
⑤ screw
③ screws
④ lower case
③ screws
⑤ screw

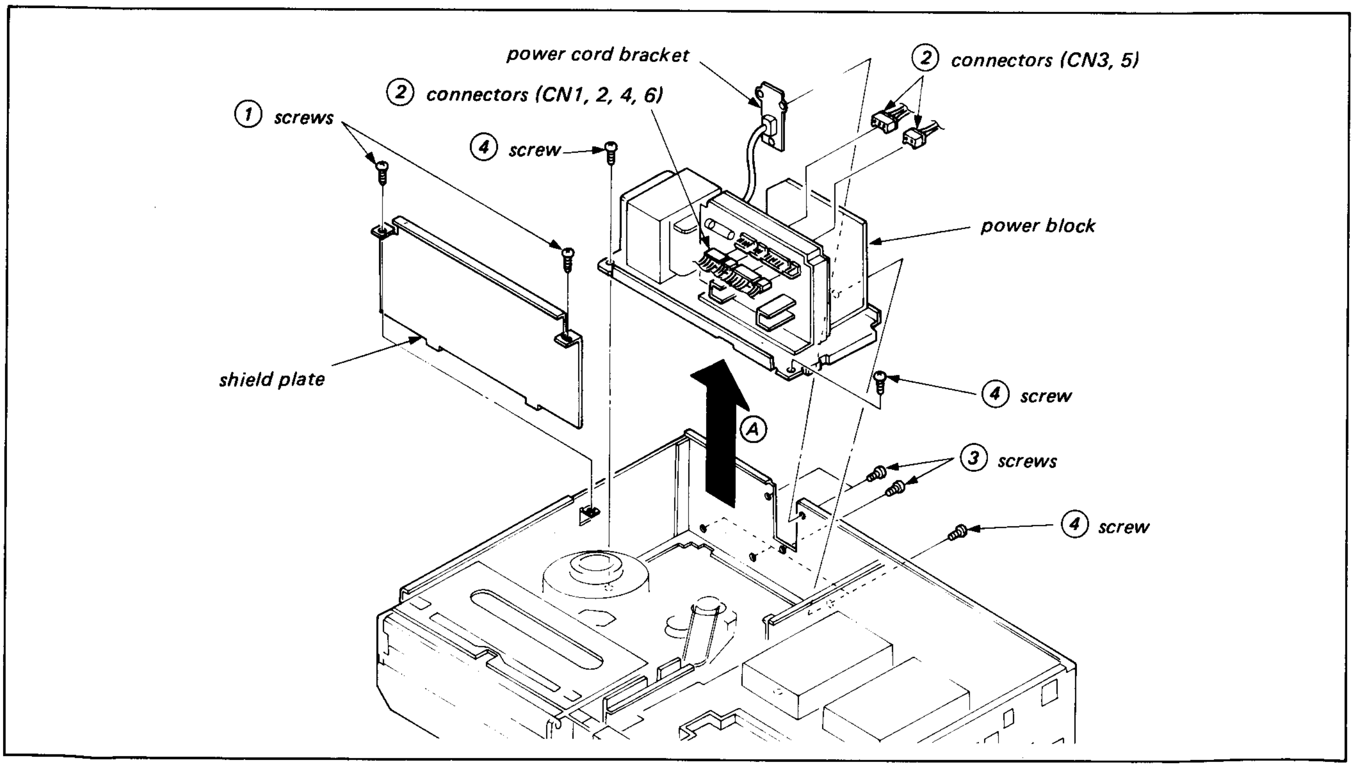
2-2. REMOVAL OF TM BLOCK ASS'Y

1) Pull out the four connectors ①.
2) Pull out the two connectors ②.
3) Remove two screws ③ and the TM-39 board.
4) Remove two screws ④ and the TM-block Ass'y.


④ screws
TM-38 board
CH-36 board
TM-39 board
TM-37 board
TM-block ass'y
CN006
CN003
CN002
③ screws
① connectors
CN602
② connectors
CN002 (to TM-37)
CN004 (to TM-37)
TU-39 board (UK MODEL)
TU-50 board (AEP MODEL)
SS-16 board

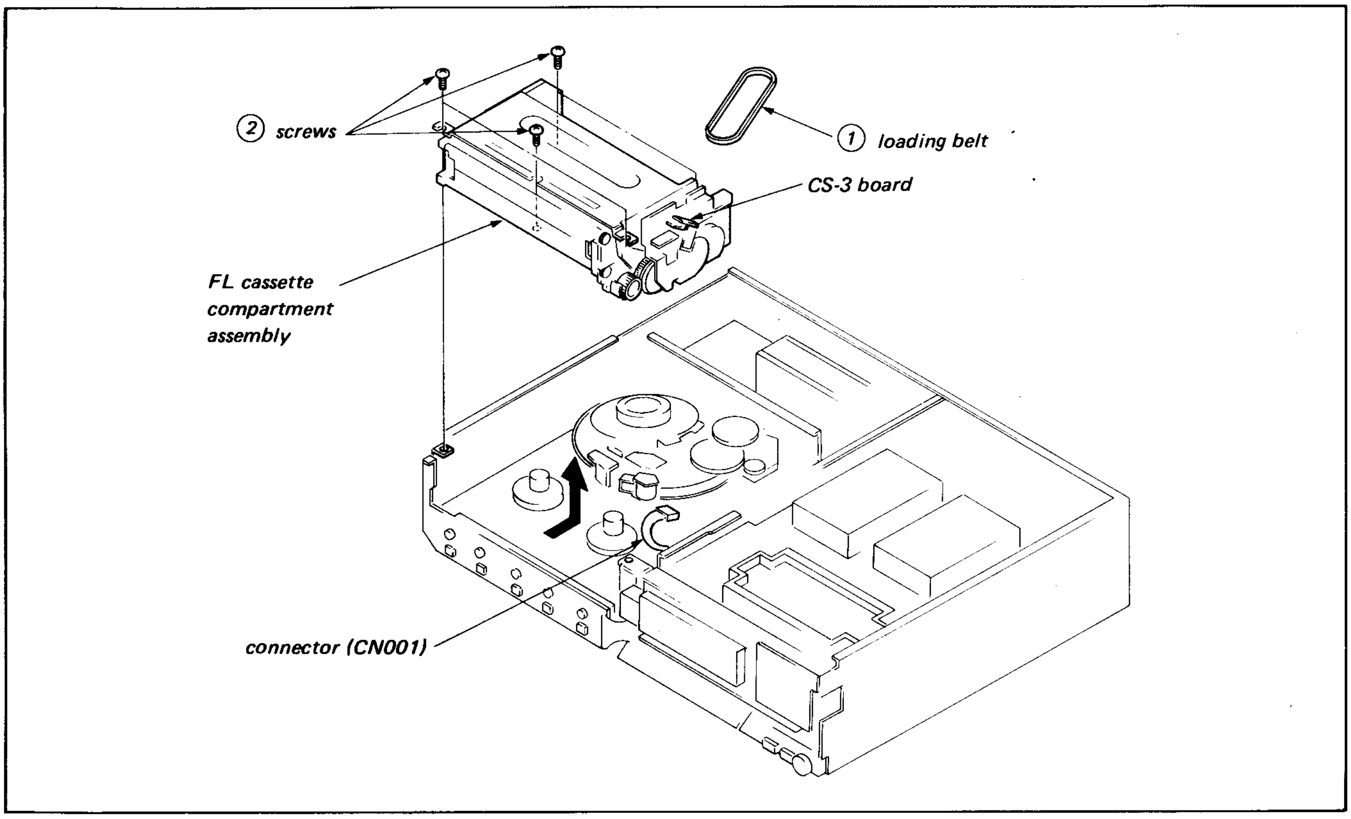
2-3. REMOVAL OF POWER BLOCK

1) Remove the two screws ①, and the shield plate.
2) Pull out the six connectors ②, (CN1, 2, 3, 4, 5, 6) from the power block side.
3) Remove the three screws ③ and the power cord bracket.
4) Remove the five screws ④, holding the power block.
5) Remove the power block in the direction shown by the arrow Ⓐ.


power cord bracket
② connectors (CN3, 5)
② connectors (CN1, 2, 4, 6)
① screws
④ screw
power block
shield plate
④ screw
Ⓐ
③ screws
④ screw

2-4. REMOVAL OF FL CASSETTE COMPARTMENT ASSEMBLY

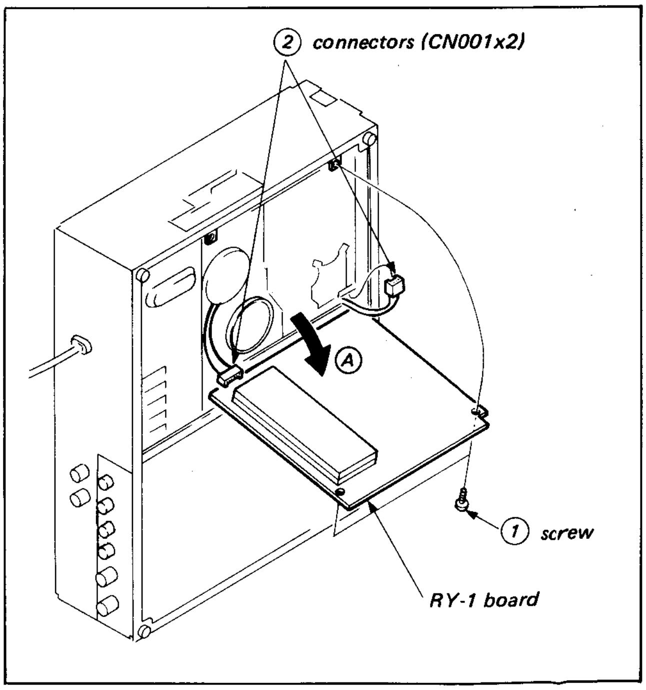
1) Loosen the loading belt ① exerting a force on the threading motor.
2) Remove the five mounting screws ② of the FL cassette compartment.
3) Disconnect the exposed connector from the CS-3 board (CN001) on the FL cassette compartment assembly.
4) Lift the FL cassette compartment assembly in the direction shown by the arrow to remove.


② screws
① loading belt
CS-3 board
FL cassette compartment assembly
connector (CN001)

2-5. REMOVAL OF MECHANICAL CHASSIS BLOCK

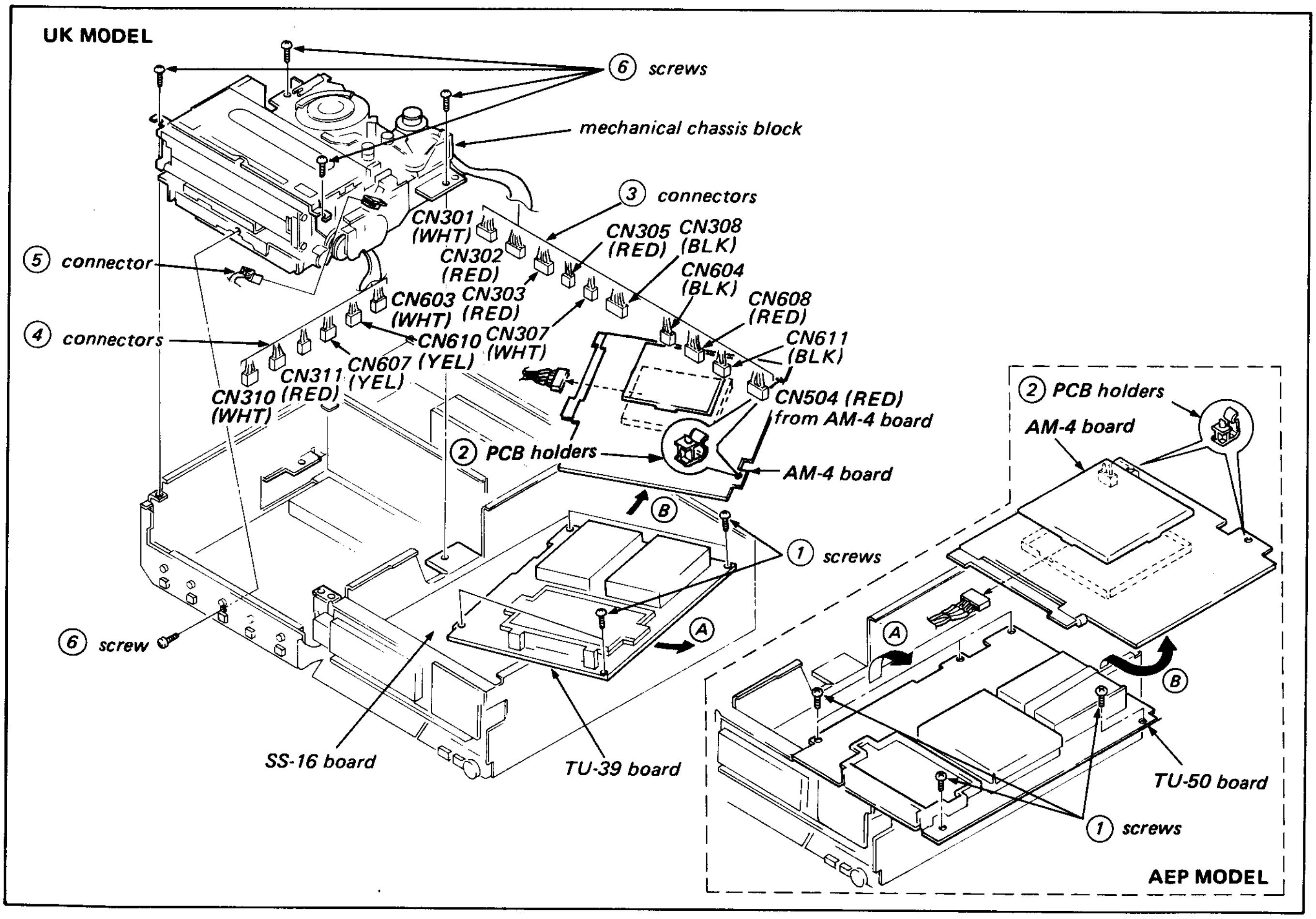
(1)

1) Stand the set with the right side panel on the bottom.
2) Remove the two screws ①, holding the RY-1 board.
3) Pull out the two connectors ② (CN001).
4) Remove the RY-1 board in the direction shown by the arrow Ⓐ.


② connectors (CN001x2)
Ⓐ
① screw
RY-1 board

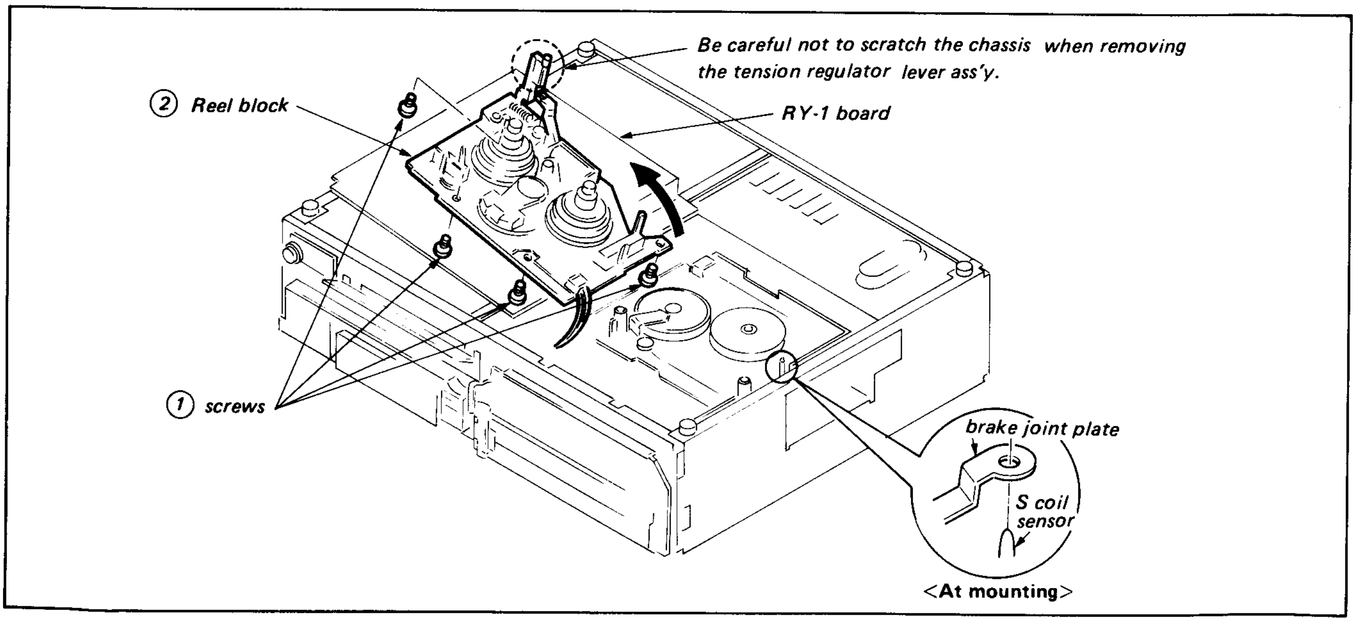
(2)

1) Remove the four (five) screws ① and the TU-39 (TU-50) board in the direction shown by the arrow Ⓐ.
2) Remove the two screws (PCB holders) ② and the AM-4 board in the direction shown by the arrow Ⓑ.
3) Pull out the ten connectors ③ from the SS-16 board and pull out the rest one from AM-4 board.
4) Pull out the six connectors 4 from the SS-16 board and pull out the connector ⑤.
5) Remove the five screws ⑥ and the mechanical chassis block.


UK MODEL
⑥ screws
mechanical chassis block
③ connectors
CN301 (WHT)
CN302 (RED)
CN305 (RED)
CN308 (BLK)
CN604 (BLK)
CN608 (RED)
CN611 (BLK)
CN603 (WHT)
CN303 (RED)
CN610
CN307 (WHT)
CN607 (YEL)
CN311 (RED)
CN310 (WHT)
CN504 (RED) from AM-4 board
⑤ connector
④ connectors
② PCB holders
AM-4 board
Ⓑ
① screws
Ⓐ
⑥ screw
SS-16 board
TU-39 board
② PCB holders
AM-4 board
Ⓐ
Ⓑ
TU-50 board
① screws
AEP MODEL

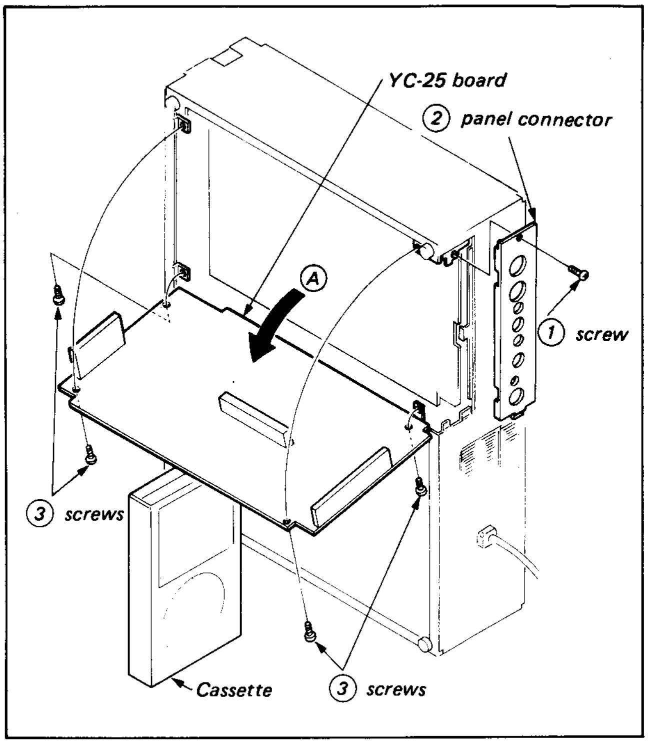
2-6. REMOVAL OF REEL ASS'Y

1) Place the set upside down.
2) Remove four screws ①.
3) Remove the reel block ②.


Be careful not to scratch the chassis when removing the tension regulator lever ass'y.
② Reel block
RY-1 board
① screws
brake joint plate
S coil sensor
<At mounting>

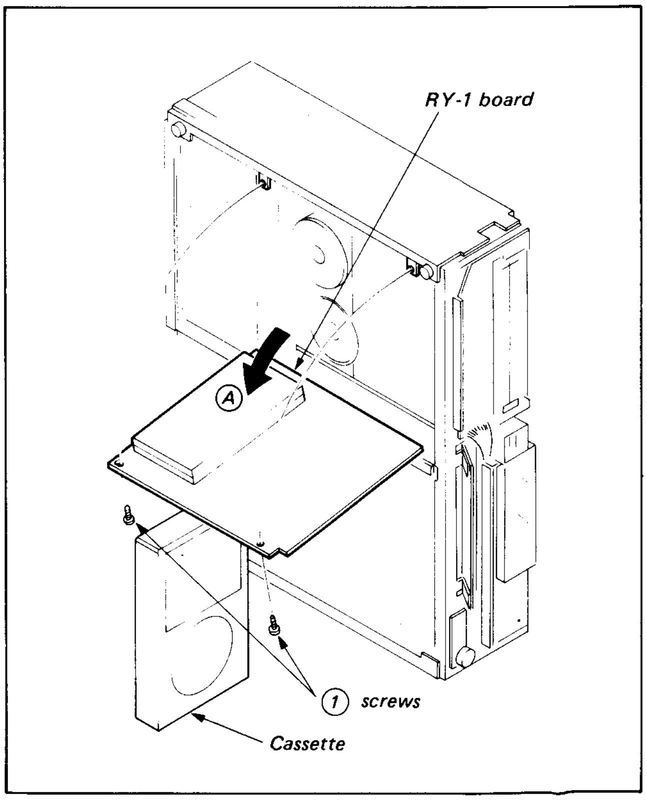
2-7. REMOVAL OF THE YC-25 BOARD

1) Stand the set with the power source side on the bottom.
2) Remove the screw ① and the panel connector ②.
3) Remove the four screws ③, holding the YC-25 board.
4) Swing open the YC-25 board in the direction shown by the arrow Ⓐ and rest it on a cassette.


YC-25 board
② panel connector
Ⓐ
① screw
③ screws
Cassette
③ screws

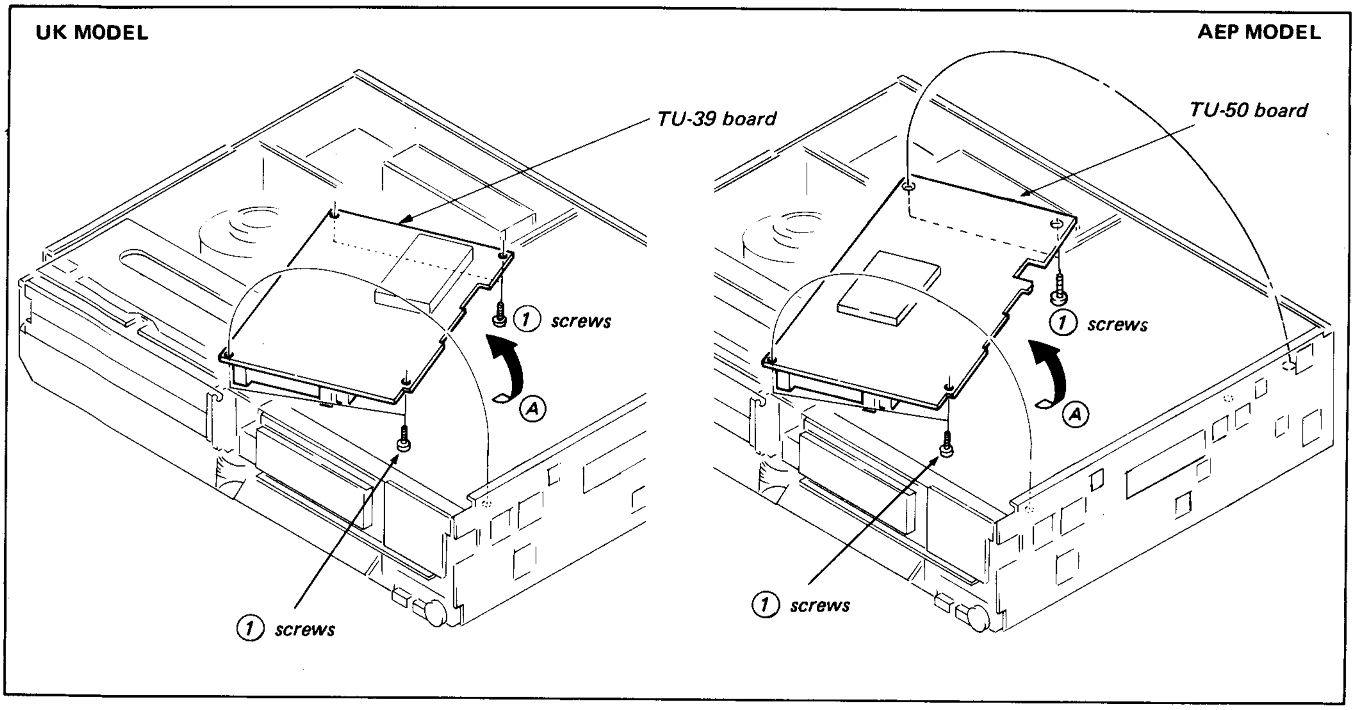
2-8. REMOVAL OF THE RY-1 BOARD

1) Stand the set with the right side panel on the bottom.
2) Remove the two screws ①, holding the RY-1 board.
3) Swing open the RY-1 board in the direction shown by the arrow Ⓐ and rest it on a cassette.


RY-1 board
Ⓐ
① screws
Cassette

2-9. REMOVAL OF THE TU-39 BOARD (UK MODEL), TU-50 BOARD (AEP MODEL)

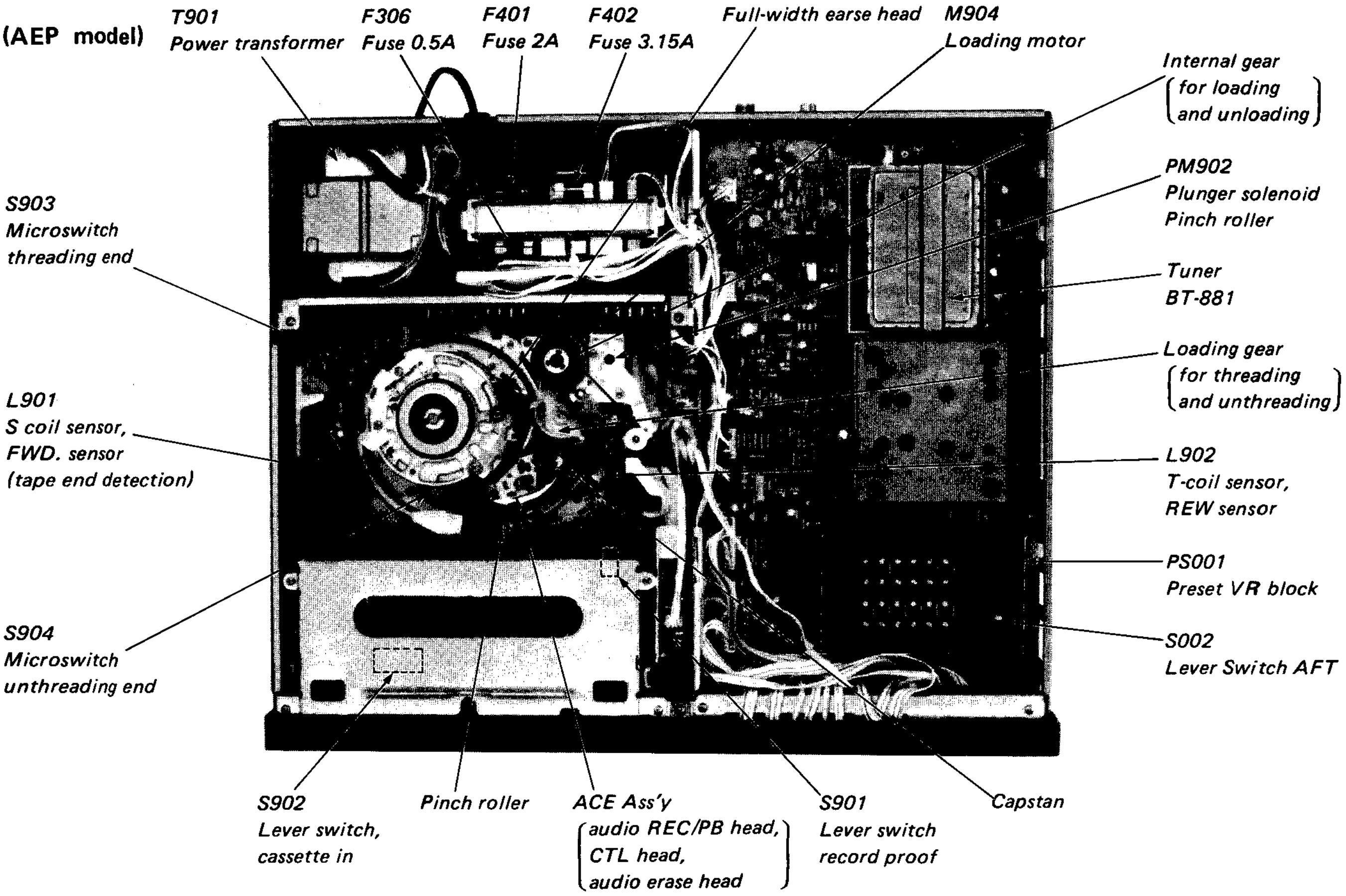
1) Remove the four screws ① holding the TU-39 board (TU-50 board).
2) Remove the TU-39 board (TU-50 board) in the direction shown by the arrow Ⓐ.


UK MODEL
AEP MODEL
TU-39 board
① screws
Ⓐ
① screws
TU-50 board
① screws
Ⓐ
① screws

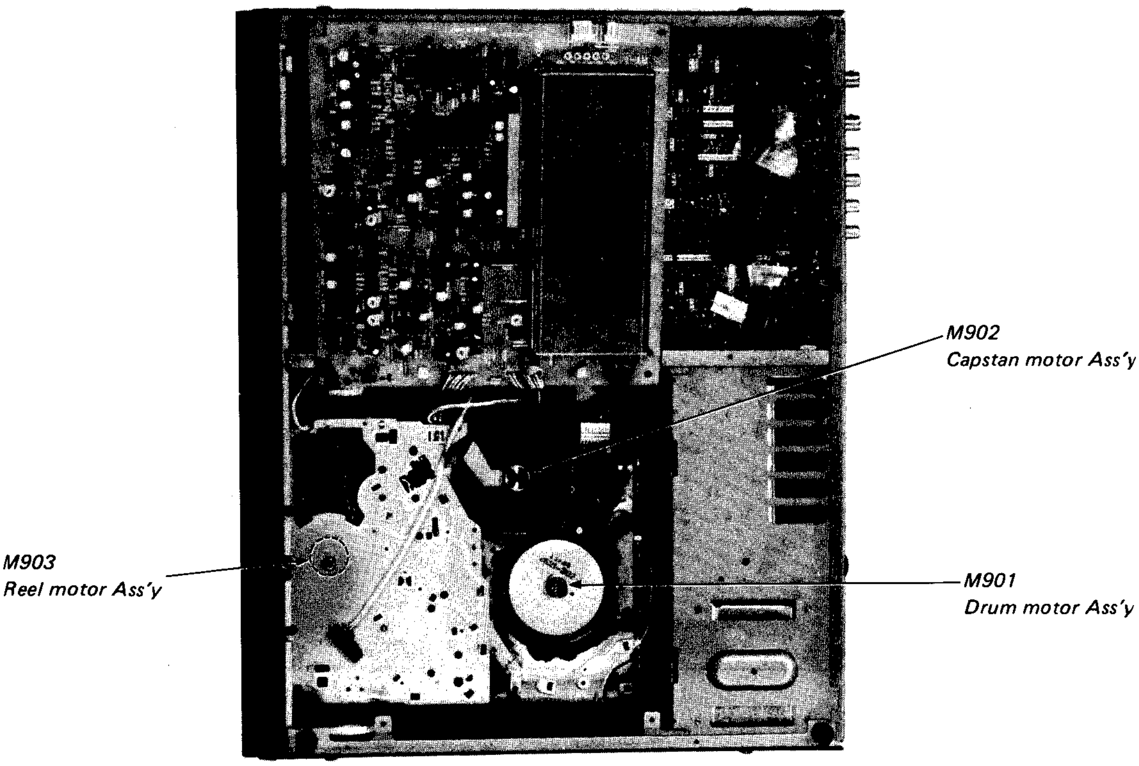
2-10. INTERNAL VIEWS

— Top side —

(AEP model)

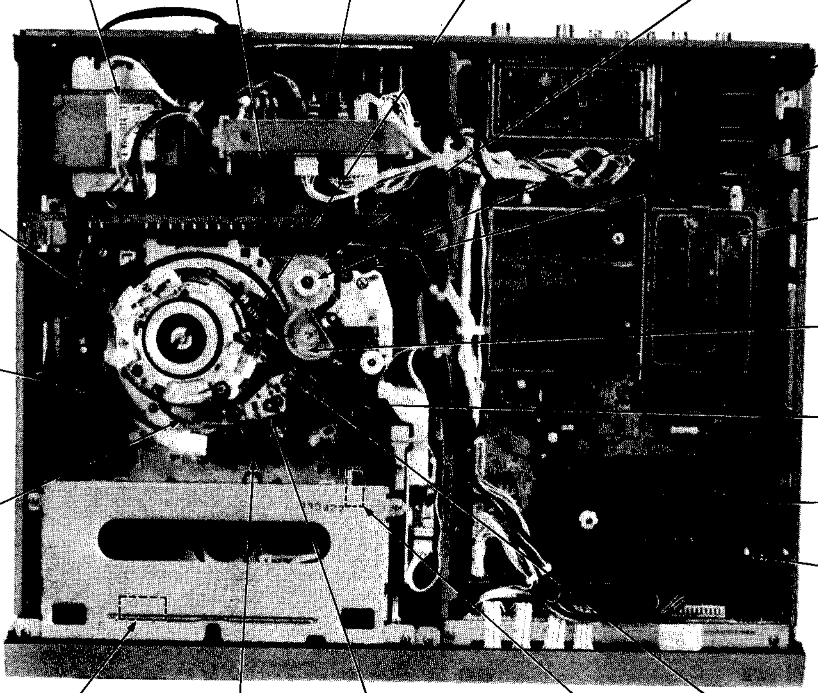

T901
Power transformer
F306
Fuse 0.5A
F401
Fuse 2A
F402
Fuse 3.15A
Full-width earse head
M904
Loading motor
Internal gear
(for loading and unloading)
PM902
Plunger solenoid
Pinch roller
Tuner
BT-881
Loading gear
(for threading and unthreading)
L902
T-coil sensor,
REW sensor
PS001
Preset VR block
S002
Lever Switch AFT
S903
Microswitch
threading end
L901
S coil sensor,
FWD. sensor
(tape end detection)
S904
Microswitch
unthreading end
S902
Lever switch,
cassette in
Pinch roller
ACE Ass'y
(audio REC/PB head,
CTL head,
audio erase head)
S901
Lever switch
record proof
Capstan

— Bottom side —

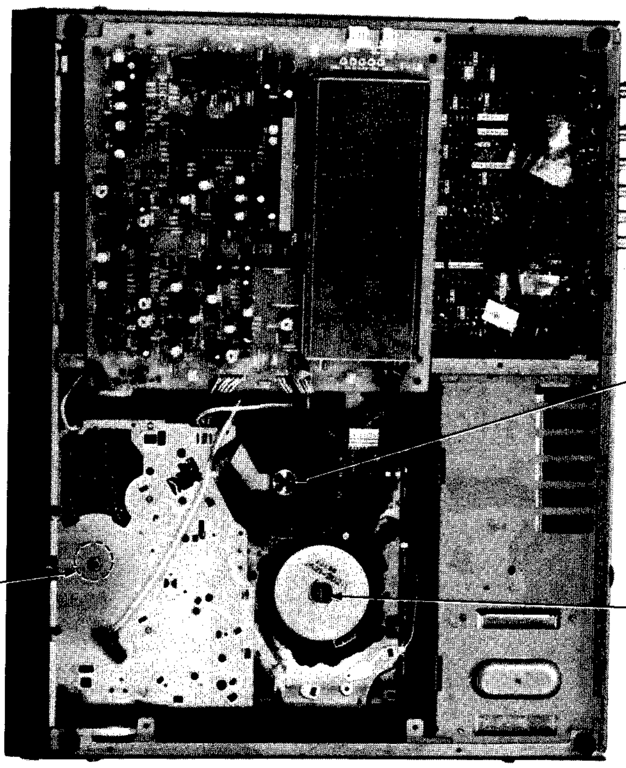

M902
Capstan motor Ass'y
M903
Reel motor Ass'y
M901
Drum motor Ass'y

— Top side —

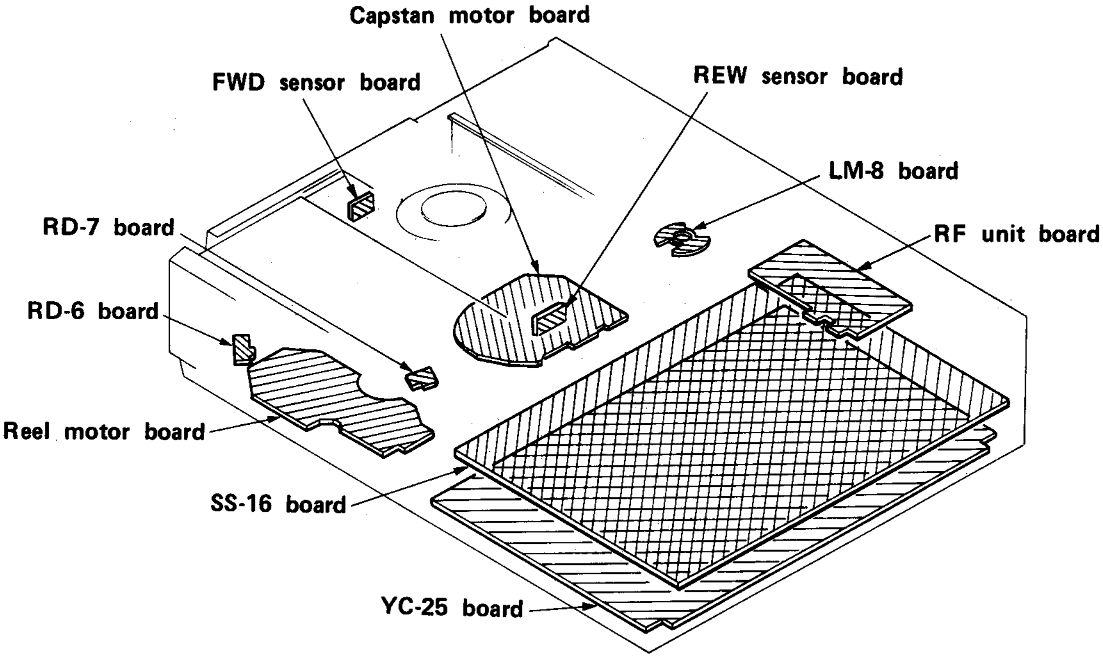
(UK model)

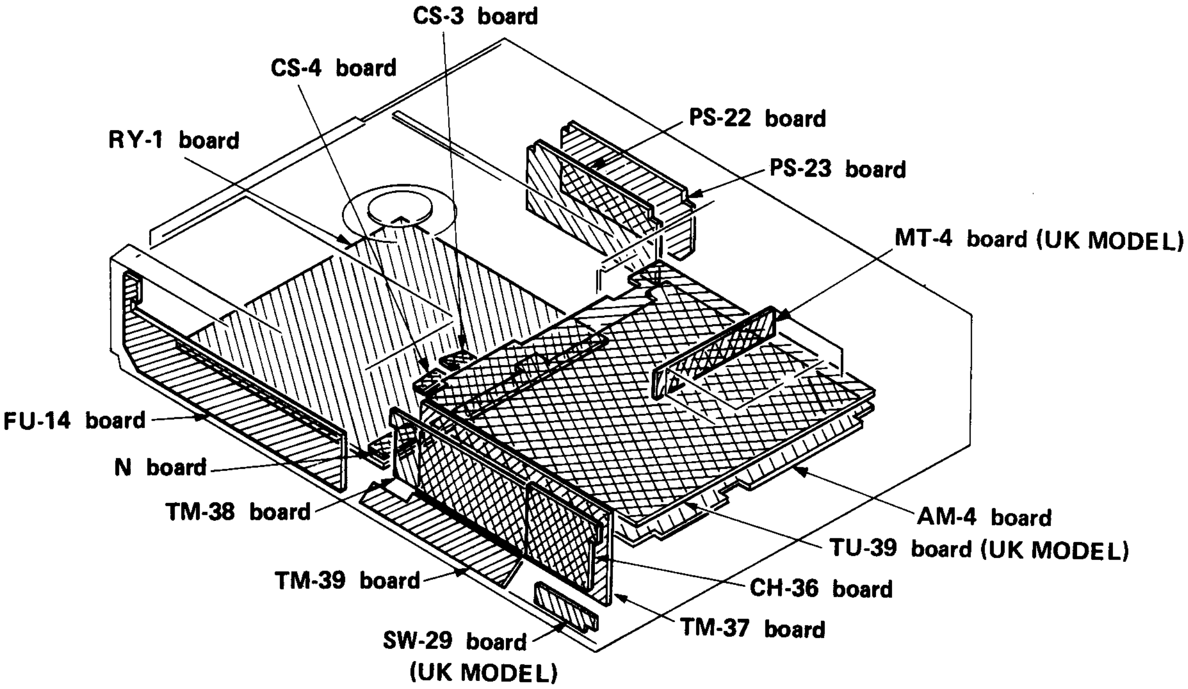

T901
Power transformer
F306
Fuse 0.5A
F402
Fuse 3.15A
Full-width earse head
M904
Loading motor
Internal gear
(for loading and unloading)
PM902
Plunger solenoid
Pinch roller
Tuner
Loading gear
(for threading and unthreading)
L902
T-coil sensor, REW sensor
PS001
Preset VR block
S002
Lever switch AFT
S903
Microswitch
threading end
L901
S coil sensor,
FWD sensor
(tape end detection)
S904
Microswitch
unthreading end
S902
Lever switch,
cassette in
Pinch roller
ACE Ass'y
(audio REC/PB head,
CTL head,
audio erase head)
S901
Lever switch
record proof
Capstan

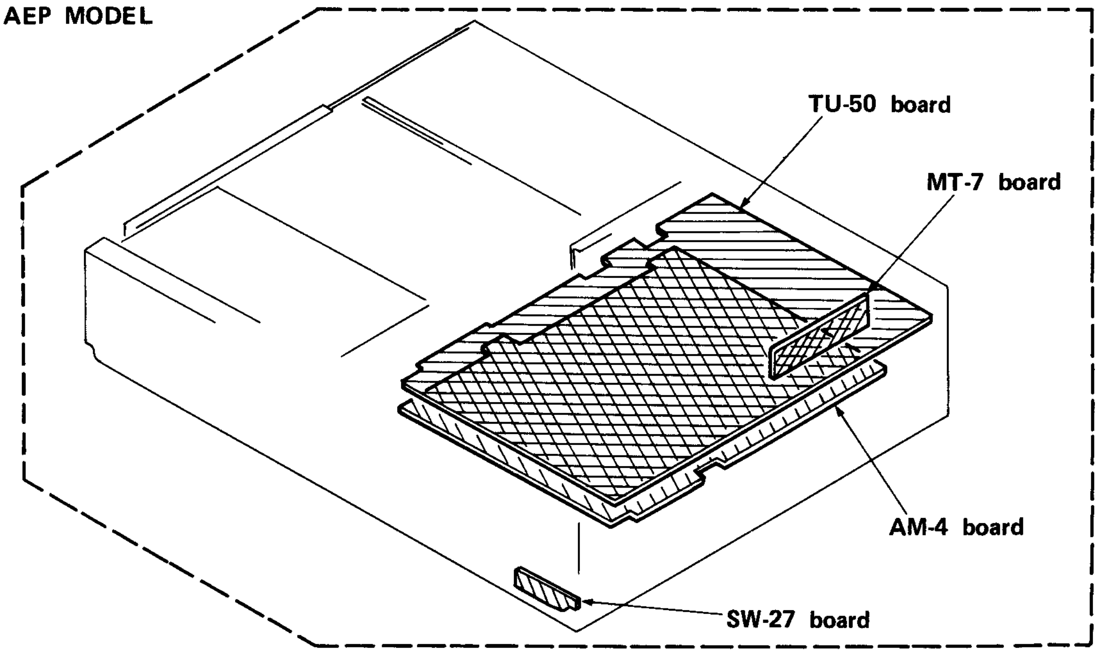
— Bottom side —


M902
Capstan motor Ass'y
M903
Reel motor Ass'y
M901
Drum motor Ass'y

2-11. BOARD ARRANGEMENT

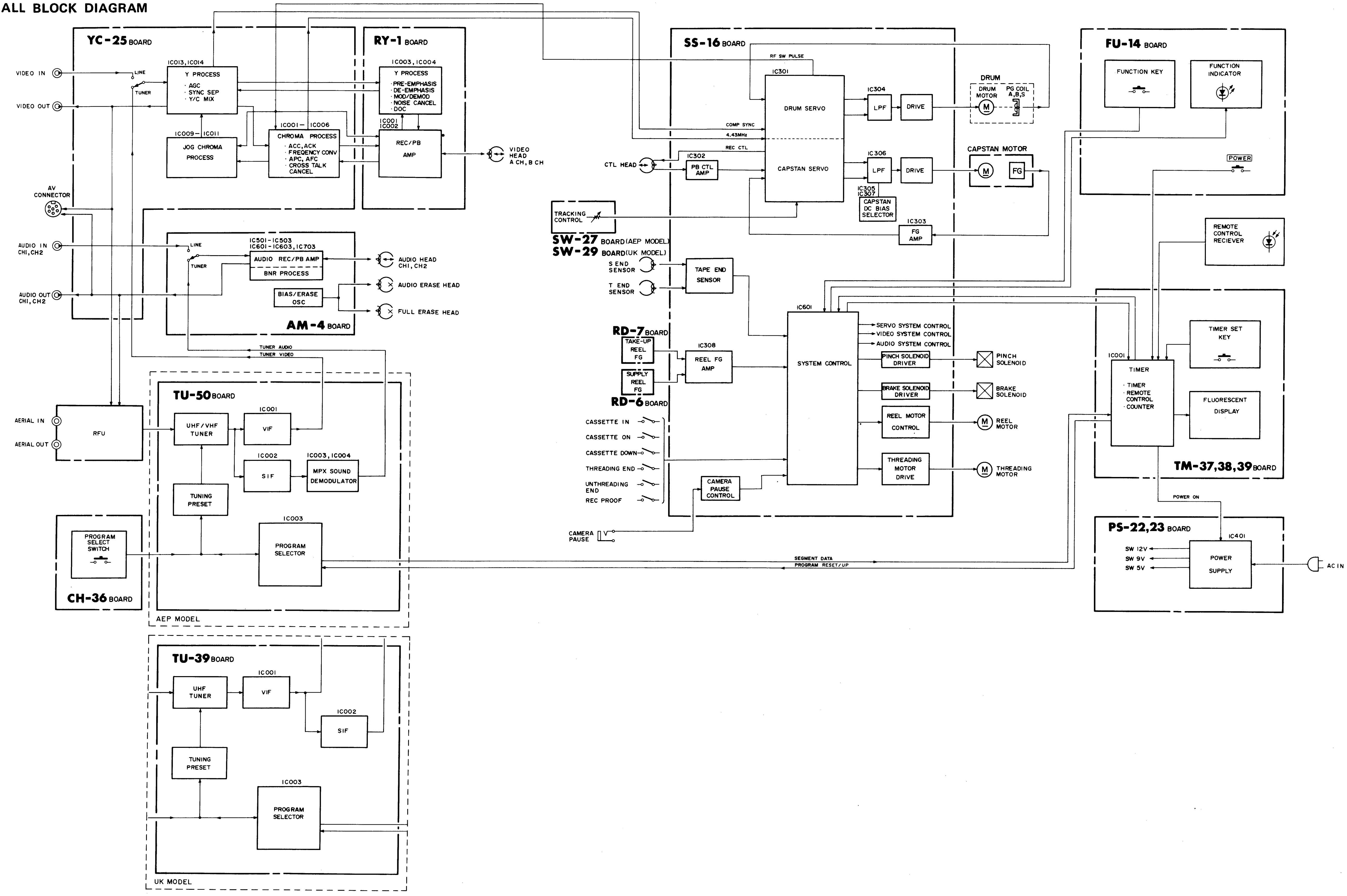

Capstan motor board
FWD sensor board
REW sensor board
LM-8 board
RD-7 board
RF unit board
RD-6 board
Reel motor board
SS-16 board
YC-25 board


CS-3 board
CS-4 board
RY-1 board
PS-22 board
PS-23 board
MT-4 board (UK MODEL)
FU-14 board
N board
TM-38 board
TM-39 board
SW-29 board (UK MODEL)
AM-4 board
TU-39 board (UK MODEL)
CH-36 board
TM-37 board

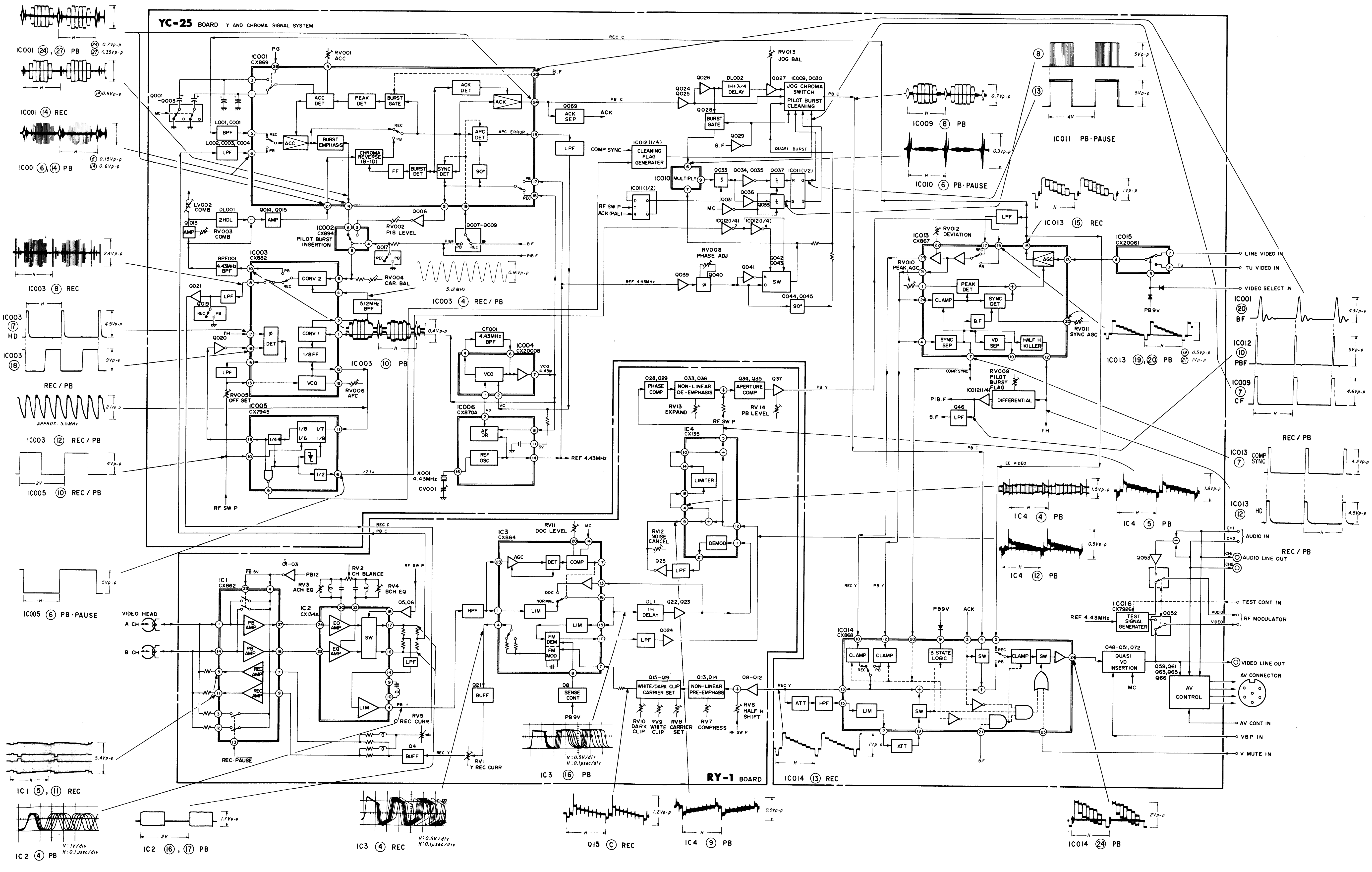

AEP MODEL
TU-50 board
MT-7 board
AM-4 board
SW-27 board

SECTION 3
DIAGRAMS

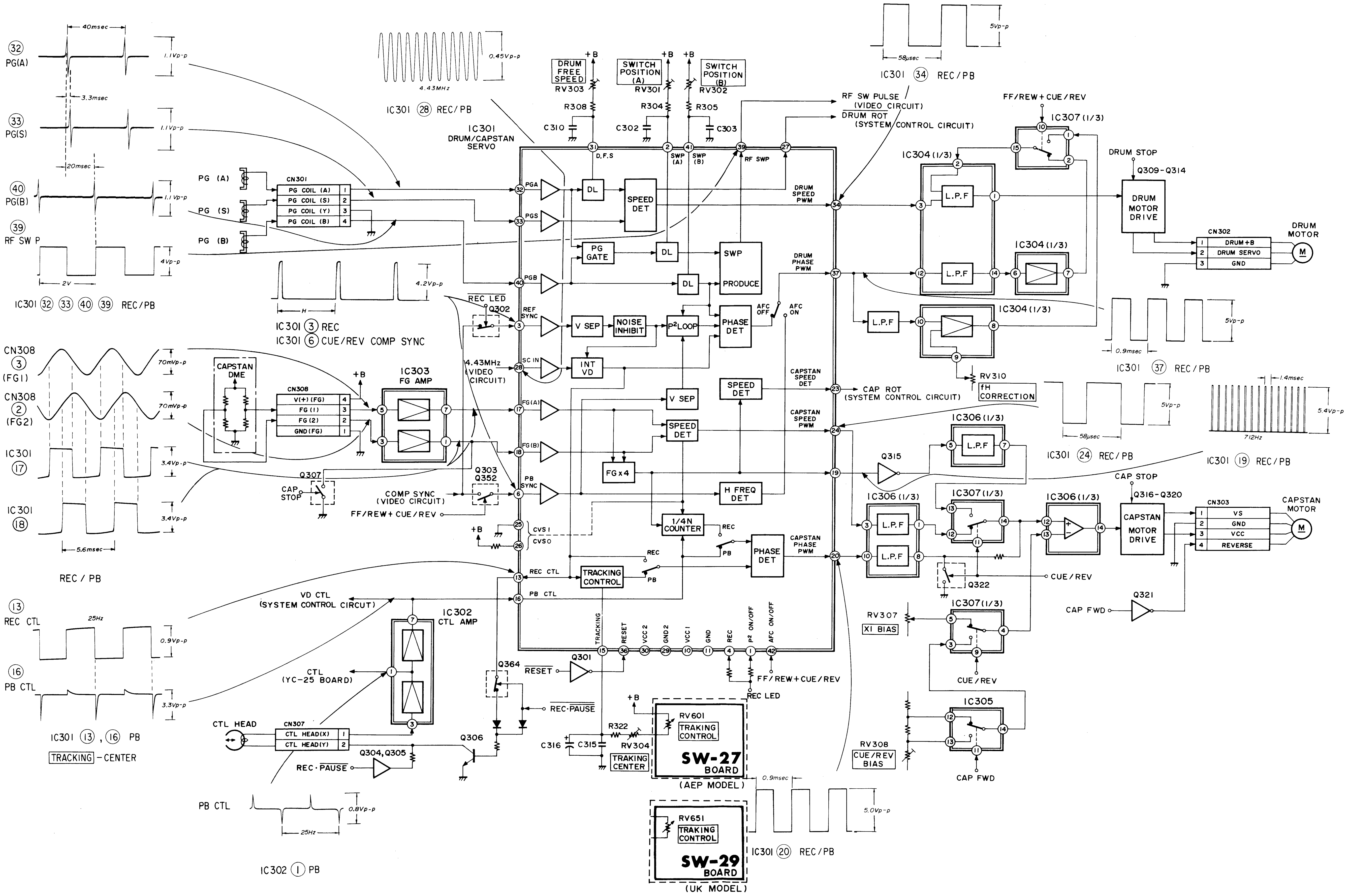
OVERALL BLOCK DIAGRAM


YC-25 BOARD
VIDEO IN
VIDEO OUT
LINE
TUNER
IC013, IC014
Y PROCESS
· AGC
· SYNC SEP
· Y/C MIX
IC009–IC011
JOG CHROMA PROCESS
IC001–IC006
CHROMA PROCESS
· ACC, ACK
· FREQENCY CONV
· APC, AFC
· CROSS TALK CANCEL
RY-1 BOARD
IC003, IC004
Y PROCESS
· PRE-EMPHASIS
· DE-EMPHASIS
· MOD/DEMOD
· NOISE CANCEL
· DOC
IC001
IC002
REC/PB AMP
VIDEO HEAD A CH, B CH
AV CONNECTOR
AUDIO IN CH1, CH2
AUDIO OUT CH1, CH2
IC501–IC503
IC601–IC603, IC703
AUDIO REC/PB AMP
BNR PROCESS
BIAS/ERASE OSC
AUDIO HEAD CH1, CH2
AUDIO ERASE HEAD
FULL ERASE HEAD
AM-4 BOARD
TUNER AUDIO
TUNER VIDEO
AERIAL IN
AERIAL OUT
RFU
TU-50 BOARD
UHF/VHF TUNER
IC001
VIF
IC002
SIF
IC003, IC004
MPX SOUND DEMODULATOR
TUNING PRESET
IC003
PROGRAM SELECTOR
AEP MODEL
PROGRAM SELECT SWITCH
CH-36 BOARD
TU-39 BOARD
UHF TUNER
IC001
VIF
IC002
SIF
TUNING PRESET
IC003
PROGRAM SELECTOR
UK MODEL
SS-16 BOARD
RF SW PULSE
IC301
DRUM SERVO
COMP SYNC
4.43MHz
REC CTL
CAPSTAN SERVO
IC304
LPF
DRIVE
DRUM
DRUM MOTOR
PG COIL A,B,S
M
IC306
LPF
DRIVE
CAPSTAN MOTOR
M
FG
IC305
IC307
CAPSTAN DC BIAS SELECTOR
IC303
FG AMP
CTL HEAD
IC302
PB CTL AMP
TRACKING CONTROL
SW-27 BOARD (AEP MODEL)
SW-29 BOARD (UK MODEL)
S END SENSOR
T END SENSOR
TAPE END SENSOR
RD-7 BOARD
TAKE-UP REEL FG
SUPPLY REEL FG
RD-6 BOARD
IC308
REEL FG AMP
IC601
SYSTEM CONTROL
SERVO SYSTEM CONTROL
VIDEO SYSTEM CONTROL
AUDIO SYSTEM CONTROL
PINCH SOLENOID DRIVER
PINCH SOLENOID
BRAKE SOLENOID DRIVER
BRAKE SOLENOID
REEL MOTOR CONTROL
REEL MOTOR
THREADING MOTOR DRIVE
THREADING MOTOR
CASSETTE IN
CASSETTE ON
CASSETTE DOWN
THREADING END
UNTHREADING END
REC PROOF
CAMERA PAUSE CONTROL
CAMERA PAUSE
FU-14 BOARD
FUNCTION KEY
FUNCTION INDICATOR
POWER
REMOTE CONTROL RECIEVER
IC001
TIMER
· TIMER
· REMOTE CONTROL
· COUNTER
TIMER SET KEY
FLUORESCENT DISPLAY
TM-37,38,39 BOARD
POWER ON
PS-22,23 BOARD
IC401
POWER SUPPLY
SW 12V
SW 9V
SW 5V
AC IN
SEGMENT DATA
PROGRAM RESET/UP

VIDEO BLOCK DIAGRAM

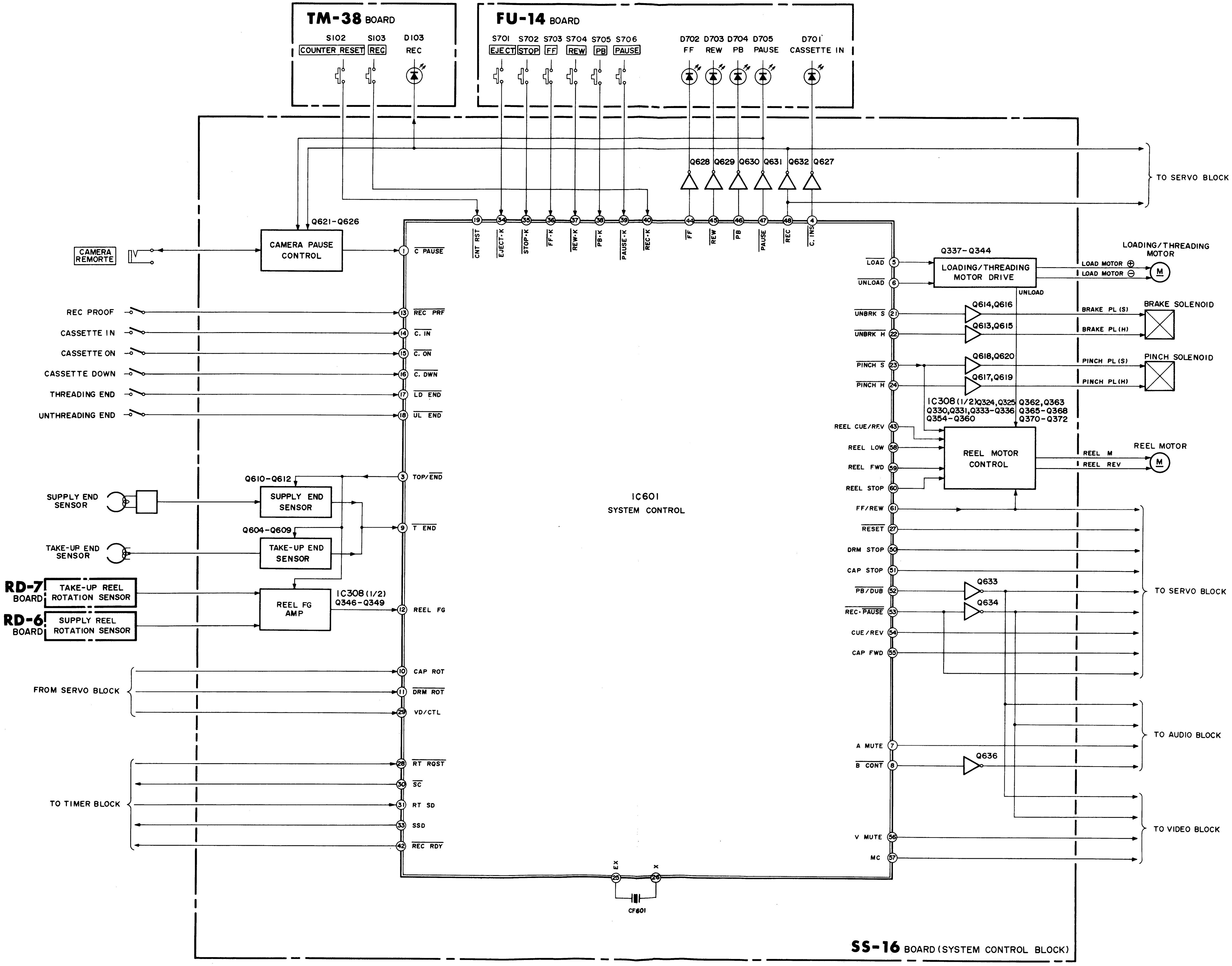

YC-25 BOARD Y AND CHROMA SIGNAL SYSTEM
RY-1 BOARD
IC001 CX869
IC002 CX894 PILOT BURST INSERTION
IC003 CX882
IC004 CX20008
IC005 CX7945
IC006 CX870A
IC009, Q030 JOG CHROMA SWITCH PILOT BURST CLEANING
IC010 MULTIPLY
IC011 PB·PAUSE
IC012 (1/4) CLEANING FLAG GENERATOR
IC013 CX867
IC014 CX868
IC015 CX20061
IC016 CX7926 TEST SIGNAL GENERATOR
IC1 CX862
IC2 CX134A
IC3 CX864
IC4 CX135
ACC DET
PEAK DET
BURST GATE
ACK DET
ACK
APC DET
BURST EMPHASIS
CHROMA REVERSE (B-ID)
SYNC DET
90°
ACK SEP
LPF
BPF
2HDL
AMP
CONV 2
CONV 1
1/8FF
VCO
5.12MHz BPF
4.43MHz BPF
AF DR
REF OSC
REF 4.43MHz
X001 4.43MHz
CV001
RV001 ACC
RV002 PIB LEVEL
RV003 COMB
RV004 CAR. BAL
RV005 OFF SET
RV006 AFC
RV008 PHASE ADJ
RV009 PILOT BURST FLAG
RV010 PEAK AGC
RV011 SYNC AGC
RV012 DEVIATION
RV013 JOG BAL
DL001
DL002 1H+λ/4 DELAY
LV002 COMB
PHASE COMP
NON-LINEAR DE-EMPHASIS
APERTURE COMP
RV13 EXPAND
RV14 PB LEVEL
LIMITER
DEMOD
RV12 NOISE CANCEL
RV11 DOC LEVEL
AGC DET COMP
LIM
FM DEM
FM MOD
SENSE CONT
DL1 1H DELAY
HPF
BUFF
WHITE/DARK CLIP CARRIER SET
NON-LINEAR PRE-EMPHASIS
RV10 DARK CLIP
RV9 WHITE CLIP
RV8 CARRIER SET
RV7 COMPRESS
RV6 HALF H SHIFT
RV1 Y REC CURR
RV2 CH BLANCE
RV3 ACH EQ
RV4 BCH EQ
RV5 REC CURR
PB AMP
REC AMP
EQ AMP
SW
VIDEO HEAD A CH B CH
REC·PAUSE
CLAMP
SYNC SEP
VD SEP
HALF H KILLER
DIFFERENTIAL
3 STATE LOGIC
ATT
QUASI VD INSERTION
AV CONTROL
LINE VIDEO IN
TU VIDEO IN
VIDEO SELECT IN
AUDIO IN
AUDIO LINE OUT
TEST CONT IN
RF MODULATOR
VIDEO LINE OUT
AV CONNECTOR
AV CONT IN
VBP IN
V MUTE IN
PB9V
REC C
PB C
PB Y
REC Y
EE VIDEO
COMP SYNC
RF SW P
IC001 ㉔, ㉗ PB
IC001 ⑭ REC
IC001 ⑥, ⑭ PB
IC003 ⑧ REC
IC003 ⑰ HD
IC003 ⑱
REC / PB
IC003 ⑫ REC / PB
IC005 ⑩ REC / PB
IC005 ⑥ PB·PAUSE
IC003 ④ REC / PB
IC003 ⑩ PB
IC009 ⑧ PB
IC010 ⑥ PB·PAUSE
IC011 PB·PAUSE
IC013 ⑮ REC
IC013 ⑲, ⑳ PB
IC001 ⑳ BF
IC012 ⑩ PBF
IC009 ⑦ CF
IC013 ⑦ COMP SYNC
IC013 ⑫ HD
IC4 ④ PB
IC4 ⑤ PB
IC4 ⑫ PB
IC1 ⑤, ⑪ REC
IC2 ④ PB
IC2 ⑯, ⑰ PB
IC3 ④ REC
IC3 ⑯ PB
Q15 Ⓒ REC
IC4 ⑨ PB
IC014 ⑬ REC
IC014 ㉔ PB
APPROX. 5.5MHz
5.12MHz
V: 0.5V/div H: 0.1μsec/div
V: 1V/div H: 0.1μsec/div

SERVO BLOCK DIAGRAM



32
PG(A)
40msec
1.1Vp-p
3.3msec
33
PG(S)
1.1Vp-p
20msec
40
PG(B)
1.1Vp-p
39
RF SW P
4Vp-p
2V
IC301 32 33 40 39 REC/PB
0.45Vp-p
4.43MHz
IC301 28 REC/PB
IC301
DRUM/CAPSTAN
SERVO
4.2Vp-p
H
IC301 3 REC
IC301 6 CUE/REV COMP SYNC
CN308
3
(FG1)
70mVp-p
CN308
2
(FG2)
70mVp-p
IC301
17
3.4Vp-p
IC301
18
3.4Vp-p
5.6msec
REC / PB
13
REC CTL
25Hz
0.9Vp-p
16
PB CTL
3.3Vp-p
IC301 13, 16 PB
TRACKING - CENTER
PG (A)
PG (S)
PG (B)
CN301
PG COIL (A) 1
PG COIL (S) 2
PG COIL (Y) 3
PG COIL (B) 4
CAPSTAN
DME
CN308
V(+) (FG) 4
FG (1) 3
FG (2) 2
GND (FG) 1
+B
IC303
FG AMP
CAP STOP
Q307
COMP SYNC
(VIDEO CIRCUIT)
FF/REW+CUE/REV
Q303
Q352
REC LED
Q302
4.43MHz
(VIDEO
CIRCUIT)
VD CTL
(SYSTEM CONTROL CIRCUT)
IC302
CTL AMP
CTL
(YC-25 BOARD)
CTL HEAD
CN307
CTL HEAD(X) 1
CTL HEAD(Y) 2
Q304,Q305
REC·PAUSE
Q306
Q364
RESET
Q301
REC·PAUSE
PB CTL
0.8Vp-p
25Hz
IC302 1 PB
DRUM
FREE
SPEED
RV303
R308
C310
SWITCH
POSITION
(A)
RV301
R304
C302
SWITCH
POSITION
(B)
RV302
R305
C303
+B
31 D.F.S
2 SWP (A)
41 SWP (B)
39 RF SWP
27
32 PGA
33 PGS
40 PGB
3 REF SYNC
28 SC IN
17 FG(A)
18 FG(B)
6 PB SYNC
25 CVS I
26 CVS O
13 REC CTL
16 PB CTL
DL
SPEED
DET
PG
GATE
DL
DL
SWP
PRODUCE
V SEP
NOISE
INHIBIT
P²LOOP
PHASE
DET
AFC
OFF
AFC
ON
INT
VD
V SEP
SPEED
DET
SPEED
DET
FGx4
H FREQ
DET
1/4N
COUNTER
REC
PB
PHASE
DET
TRACKING
CONTROL
REC
PB
DRUM
SPEED
PWM
34
DRUM
PHASE
PWM
37
CAPSTAN
SPEED
DET
23
CAPSTAN
SPEED
PWM
24
19
CAPSTAN
PHASE
PWM
20
TRACKING 15
RESET 36
VCC 2 30
GND 2 29
VCC 1 10
GND 11
REC 4
P² ON/OFF 1
AFC ON/OFF 42
FF/REW+CUE/REV
REC LED
+B
R322
C316
C315
RV304
TRAKING
CENTER
RV601
TRAKING
CONTROL
SW-27
BOARD
(AEP MODEL)
RV651
TRAKING
CONTROL
SW-29
BOARD
(UK MODEL)
0.9msec
5.0Vp-p
IC301 20 REC/PB
5Vp-p
58μsec
IC301 34 REC/PB
RF SW PULSE
(VIDEO CIRCUIT)
DRUM ROT
(SYSTEM CONTROL CIRCUIT)
FF/REW+CUE/REV
IC307 (1/3)
IC304 (1/3)
L.P.F
L.P.F
IC304 (1/3)
DRUM STOP
Q309-Q314
DRUM
MOTOR
DRIVE
CN302
1 DRUM+B
2 DRUM SERVO
3 GND
DRUM
MOTOR
M
L.P.F
IC304 (1/3)
RV310
fH
CORRECTION
5Vp-p
0.9msec
IC301 37 REC/PB
CAP ROT
(SYSTEM CONTROL CIRCUIT)
5Vp-p
58μsec
IC301 24 REC/PB
1.4msec
5.4Vp-p
712Hz
IC301 19 REC/PB
IC306 (1/3)
L.P.F
Q315
IC306 (1/3)
L.P.F
L.P.F
IC307 (1/3)
IC306 (1/3)
CAP STOP
Q316-Q320
CAPSTAN
MOTOR
DRIVE
CN303
1 VS
2 GND
3 VCC
4 REVERSE
CAPSTAN
MOTOR
M
Q322
CUE/REV
Q321
CAP FWD
RV307
X1 BIAS
IC307 (1/3)
CUE/REV
IC305
RV308
CUE/REV
BIAS
CAP FWD

SYSTEM CONTROL BLOCK DIAGRAM


TM-38 BOARD
S102
S103
D103
COUNTER RESET
REC
REC
FU-14 BOARD
S701
S702
S703
S704
S705
S706
EJECT
STOP
FF
REW
PB
PAUSE
D702
D703
D704
D705
D701
FF
REW
PB
PAUSE
CASSETTE IN
Q628
Q629
Q630
Q631
Q632
Q627
TO SERVO BLOCK
Q621-Q626
CAMERA REMORTE
CAMERA PAUSE CONTROL
1
C PAUSE
19
CNT RST
34
EJECT·K
35
STOP·K
36
FF·K
37
REW·K
38
PB·K
39
PAUSE·K
40
REC·K
44
FF
45
REW
46
PB
47
PAUSE
48
REC
4
C. INS
REC PROOF
13
REC PRF
CASSETTE IN
14
C. IN
CASSETTE ON
15
C. ON
CASSETTE DOWN
16
C. DWN
THREADING END
17
LD END
UNTHREADING END
18
UL END
Q610-Q612
3
TOP/END
SUPPLY END SENSOR
SUPPLY END SENSOR
Q604-Q609
9
T END
TAKE-UP END SENSOR
TAKE-UP END SENSOR
RD-7 BOARD
TAKE-UP REEL ROTATION SENSOR
RD-6 BOARD
SUPPLY REEL ROTATION SENSOR
REEL FG AMP
IC308 (1/2)
Q346-Q349
12
REEL FG
FROM SERVO BLOCK
10
CAP ROT
11
DRM ROT
29
VD/CTL
TO TIMER BLOCK
28
RT RQST
30
SC
31
RT SD
33
SSD
42
REC RDY
IC601
SYSTEM CONTROL
EX
25
X
26
CF601
Q337-Q344
LOAD
5
UNLOAD
6
LOADING/THREADING MOTOR DRIVE
LOAD MOTOR ⊕
LOAD MOTOR ⊖
LOADING/THREADING MOTOR
M
UNLOAD
UNBRK S
21
UNBRK H
22
Q614,Q616
Q613,Q615
BRAKE PL (S)
BRAKE PL (H)
BRAKE SOLENOID
PINCH S
23
PINCH H
24
Q618,Q620
Q617,Q619
PINCH PL (S)
PINCH PL (H)
PINCH SOLENOID
IC308 (1/2) Q324, Q325
Q330, Q331, Q333-Q336
Q354-Q360
Q362, Q363
Q365-Q368
Q370-Q372
REEL CUE/REV
43
REEL LOW
58
REEL FWD
59
REEL STOP
60
REEL MOTOR CONTROL
REEL M
REEL REV
REEL MOTOR
M
FF/REW
61
RESET
27
DRM STOP
50
CAP STOP
51
PB/DUB
52
Q633
REC·PAUSE
53
Q634
CUE/REV
54
CAP FWD
55
TO SERVO BLOCK
A MUTE
7
B CONT
8
Q636
TO AUDIO BLOCK
V MUTE
56
MC
57
TO VIDEO BLOCK
SS-16 BOARD (SYSTEM CONTROL BLOCK)

SYSTEM CONTROL CIRCUIT AND MECHANISM BLOCK INTERFACE

SIGNAL	I/O	Pin No.	EJECTED	LOADING	THREADING	STOP	UN-THREADING	UN-LOADING	FF	REW	PB	PB·PAUSE	PICTURE SEARCH		REC	REC·PAUSE	TIMER REC	FR SEARCH	
													CUE	REV				CUE	REV
REC PROOF	I	IC601 13pin	H	H	H/L	H/L	H/L	H	H/L	H/L	H/L	H/L	H/L	H/L	L	L	L	H/L	H/L
C·IN	I	IC601 14pin	H	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
C·ON	I	IC601 15pin	H	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
C·DWN	I	IC601 16pin	H	H	L	L	L	H	L	L	L	L	L	L	L	L	L	L	L
LD END	I	IC601 17pin	H	H	H	L	H	H	L	L	L	L	L	L	L	L	L	L	L
UL END	I	IC601 18pin	L	L	H	H	H	L	H	H	H	H	H	H	H	H	H	H	H
UNBRK S	O	IC601 21pin	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
UNBRK H	O	IC601 22pin	H	H	L	H	L	H	L	L	L	H	L	L	L	H	L	L	L
PINCH S	O	IC601 23pin	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
PINCH H	O	IC601 24pin	H	L	H	H	H	L	H	H	L	H	L	L	L	H	L	H	H
LOAD	O	IC601 5pin	H	L	L	H	H	H	H	H	H	H	H	H	H	H	H	H	H
UNLOAD	O	IC601 6pin	H	H	H	H	L	L	H	H	H	H	H	H	H	H	H	H	H

SYSTEM CONTROL CIRCUIT AND REMOTE CONTROL/TIMER CIRCUIT INTERFACE

SIGNAL	I/O	Pin No.	STOP	FF	REW	PB	PB·PAUSE	PICTURE SEARCH		REC	REC·PAUSE	TIMER REC	FR SEARCH	
								CUE	REV				CUE	REV
RT RQST	I	IC601 28pin												
RTSD	I	IC601 31pin												
COUNTER RESET	I	IC601 19pin												
SSD	O	IC601 33pin												
SC	O	IC601 30pin												
REC READY	O	IC601 42pin	H/L	H	H	H	H	H	H	H	H	L	H	H

SYSTEM CONTROL CIRCUIT AND FUNCTION BLOCK INTERF

SIGNAL	I/O	Pin No.	STOP	FF	REW
EJECT·K	I	IC601 34pin	H	H	H
STOP·K	I	IC601 35pin	H	H	H
FF·K	I	IC601 36pin	H	H	H
REW·K	I	IC601 37pin	H	H	H
PB·K	I	IC601 38pin	H	H	H
PAUSE·K	I	IC601 39pin	H	H	H
REC·K	I	IC601 40pin	H	H	H
FF	O	IC601 44pin	H	L	H
REW	O	IC601 45pin	H	H	L
PB	O	IC601 46pin	H	H	H
PAUSE	O	IC601 47pin	H	H	H
REC	O	IC601 48pin	H	H	H
C·IN	O	IC601 4pin	L	L	L

SYSTEM CONTROL CIRCUIT AND ITS PERIPHERAL CIRCUIT

SIGNAL	I/O	Pin No.	STOP	FF	REW
TEND*[1]	I	IC601 9pin	H	H	H
C·PAUSE*[2]	I	IC601 1pin	H	H	H
TOP/END	O	IC601 3pin	L	L	H

*1 "L" at tape end.

*2 Camera pause signal.

PB	PB·PAUSE	PICTURE SEARCH		REC	REC·PAUSE	TIMER REC	FR SEARCH	
		CUE	REV				CUE	REV
H/L	H/L	H/L	H/L	L	L	L	H/L	H/L
L	L	L	L	L	L	L	L	L
L	L	L	L	L	L	L	L	L
L	L	L	L	L	L	L	L	L
L	L	L	L	L	L	L	L	L
H	H	H	H	H	H	H	H	H
H	H	H	H	H	H	H	H	H
L	H	L	L	L	H	L	L	L
H	H	H	H	H	H	H	H	H
L	H	L	L	L	H	L	H	H
H	H	H	H	H	H	H	H	H
H	H	H	H	H	H	H	H	H

REC·PAUSE	TIMER REC	FR SEARCH	
		CUE	REV
H	L	H	H

SYSTEM CONTROL CIRCUIT AND FUNCTION BLOCK INTERFACE

MODE / SIGNAL	I/O	Pin No.	STOP	FF	REW	PB	PB·PAUSE	PICTURE SEARCH		REC	REC·PAUSE	TIMER REC	FR SEARCH	
								CUE	REV				CUE	REV
$\overline{\text{EJECT·K}}$	I	IC601 34pin	H	H	H	H	H	H	H	H	H	H	H	H
$\overline{\text{STOP·K}}$	I	IC601 35pin	H	H	H	H	H	H	H	H	H	H	H	H
$\overline{\text{FF·K}}$	I	IC601 36pin	H	H	H	H	H	L	H	H	H	H	L	H
$\overline{\text{REW·K}}$	I	IC601 37pin	H	H	H	H	H	H	L	H	H	H	H	L
$\overline{\text{PB·K}}$	I	IC601 38pin	H	H	H	H	H	H	H	H	H	H	H	H
$\overline{\text{PAUSE·K}}$	I	IC601 39pin	H	H	H	H	H	H	H	H	H	H	H	H
$\overline{\text{REC·K}}$	I	IC601 40pin	H	H	H	H	H	H	H	H	H	H	H	H
$\overline{\text{FF}}$	O	IC601 44pin	H	L	H	H	H	L	H	H	H	H	L	H
$\overline{\text{REW}}$	O	IC601 45pin	H	H	L	H	H	H	L	H	H	H	H	L
$\overline{\text{PB}}$	O	IC601 46pin	H	H	H	L	L	L	L	H	H	H	L	L
$\overline{\text{PAUSE}}$	O	IC601 47pin	H	H	H	H	L	H	H	H	L	H	H	H
$\overline{\text{REC}}$	O	IC601 48pin	H	H	H	H	H	H	H	L	L	L	H	H
$\overline{\text{C·IN}}$	O	IC601 4pin	L	L	L	L	L	L	L	L	L	L	L	L

SYSTEM CONTROL CIRCUIT AND ITS PERIPHERAL CIRCUIT INTERFACE

MODE / SIGNAL	I/O	Pin No.	STOP	FF	REW	PB	PB·PAUSE	PICTURE SEARCH		REC	REC·PAUSE	TIMER REC	FR SEARCH	
								CUE	REV				CUE	REV
TEND*[1]	I	IC601 9pin	H	H	H	H	H	H	H	H	H	H	H	H
C·PAUSE*[2]	I	IC601 1pin	H	H	H	H	H	H	H	H	H	H	H	H
TOP/END	O	IC601 3pin	L	L	H	L	L	L	H	L	L	L	L	H

*1 "L" at tape end.

*2 Camera pause signal.

SYSTEM CONTROL CIRCUIT AND REEL MOTOR CONTROL CIRCUIT INTERFACE

SIGNAL \ MODE	I/O	Pin No.	EJECTED	LOADING	THREADING	STOP	UN-THREADING	UN-LOADING	FF	REW	PB	PB·PAUSE	PICTURE SEARCH		REC	REC·PAUSE	TIMER REC	FR SEARCH	
													CUE	REV				CUE	REV
REEL FG	I	IC601 12pin																	
REEL LOW	O	IC601 58pin	L	L	H	L	H	L	L	L	H	H	L	L	H	H	H	H	H
REEL FWD	O	IC601 59pin	H	H	H	H	L	H	H	L	H	H	H	L	H	H	H	H	L
REEL STOP	O	IC601 60pin	H	H	L	H	L	H	L	L	L	H	L	L	L	H	L	L	L
FF/REW	O	IC601 61pin	L	L	L	L	L	L	H	H	L	L	L	L	L	L	L	H	H
REEL CUE/REV	O	IC601 43pin	L	L	L	L	L	L	L	L	L	L	H	H	L	L	L	L	L
$\overline{\text{PINCH S}}$	O	IC601 23pin	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
TOP/$\overline{\text{END}}$	O	IC601 3pin	L	L	L	L	L	L	L	H	L	L	L	H	L	L	L	L	H
$\overline{\text{UNLOAD}}$	O	IC601 6pin	H	H	H	H	L	L	H	H	H	H	H	H	H	H	H	H	H

SYSTEM CONTROL CIRCUIT AND VIDEO CIRCUIT INTERFACE

SIGNAL \ MODE	I/O	Pin No.	STOP (E-E)	FF	REW	PB	PB·PAUSE	PICTURE SEARCH		REC	REC·PAUSE	TIMER REC	FR SEARCH	
								CUE	REV				CUE	REV
V MUTE	O	IC601 56pin	L	L	L	L	L	L	L	L	L	L	L	L
MC	O	IC601 57pin	L	L	L	L	H	H	H	L	L	L	H	H
$\overline{\text{REC·PAUSE}}$	O	IC601 53pin	H	H	H	H	H	H	H	L	H	L	H	H
$\overline{\text{PB + DUB}}$	O	IC601 52pin	H	H	H	L	L	L	L	H	H	H	L	L

SYSTEM CONTROL CIRCUIT AND SERVO CIRCUIT IN

SIGNAL \ MODE	I/O	Pin No.	STOP	FF
$\overline{\text{DRUM ROT}}$	I	IC601 11pin	H	L
CAP ROT	I	IC601 10pin	L	L
VD/CTL	I	IC601 29pin		CTL
DRUM STOP	O	IC601 50pin	H	L
CAP STOP	O	IC601 51pin	H	H
$\overline{\text{PB + DUB}}$	O	IC601 52pin	H	H
$\overline{\text{REC·PAUSE}}$	O	IC601 53pin	H	H
CUE/REV	O	IC601 54pin	L	L
CAP FWD	O	IC601 55pin	H	H
$\overline{\text{194 RESET}}$*1	O	IC601 27pin	H	H

*1 Reset signal for CX194.

SYSTEM CONTROL CIRCUIT AND AUDIO CIRCUIT IN

SIGNAL \ MODE	I/O	Pin No.	STOP (E-E)	FF
A MUTE	O	IC601 7pin	L	L
B CONT	O	IC601 8pin	H	H
$\overline{\text{REC·PAUSE}}$	O	IC601 53pin	H	H
$\overline{\text{PB + DUB}}$	O	IC601 52pin	H	H

PB	PB·PAUSE	PICTURE SEARCH		REC	REC·PAUSE	TIMER REC	FR SEARCH	
		CUE	REV				CUE	REV
H	H	L	L	H	H	H	H	H
H	H	H	L	H	H	H	H	L
L	H	L	L	L	H	L	L	L
L	L	L	L	L	L	L	H	H
L	L	H	H	L	L	L	L	L
H	H	H	H	H	H	H	H	H
L	L	L	H	L	L	L	L	H
H	H	H	H	H	H	H	H	H

REC·PAUSE	TIMER REC	FR SEARCH	
		CUE	REV
L	L	L	L
L	L	H	H
H	L	H	H
H	H	L	L

SYSTEM CONTROL CIRCUIT AND SERVO CIRCUIT INTERFACE

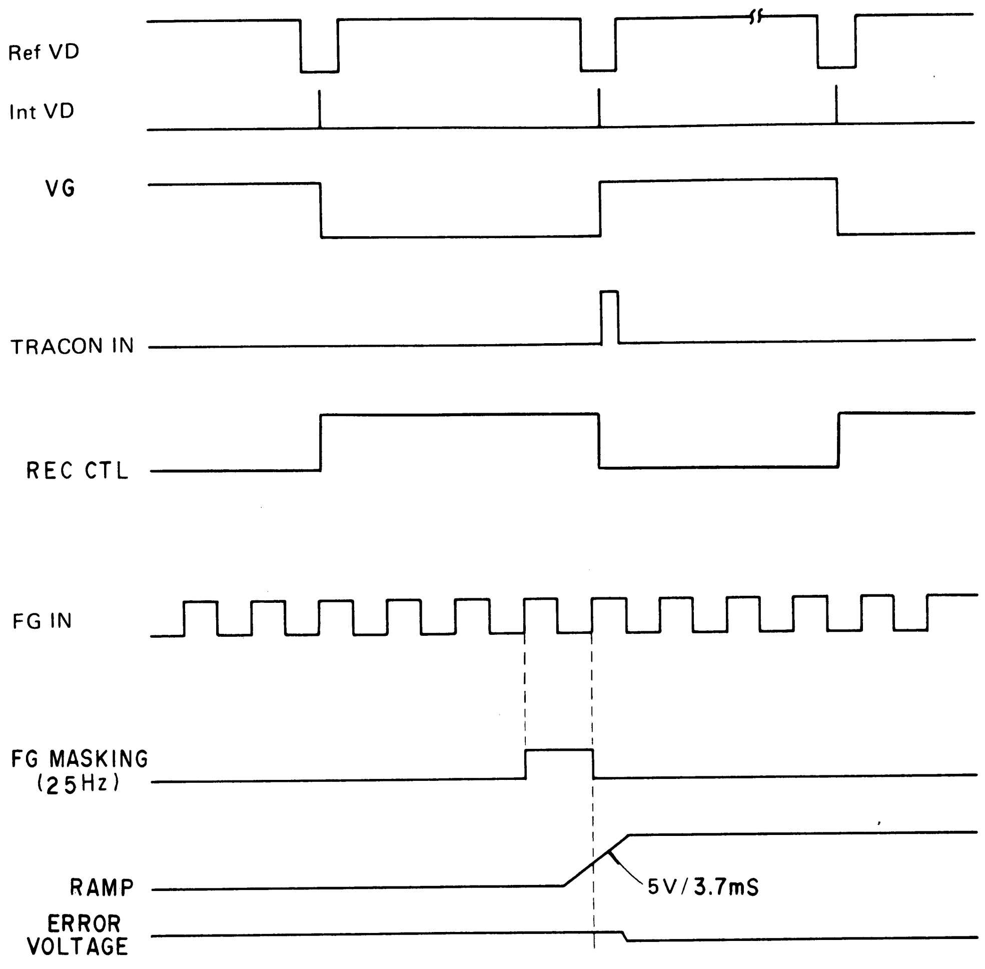
MODE SIGNAL	I/O	Pin No.	STOP	FF	REW	PB	PB·PAUSE	PICTURE SEARCH		REC	REC·PAUSE	TIMER REC	FR SEARCH	
								CUE	REV				CUE	REV
$\overline{\text{DRUM ROT}}$	I	IC601 11pin	H	L	L	L	L	L	L	L	L	L	L	L
CAP ROT	I	IC601 10pin	L	L	L	H	H	H	H	H	H	H	L	L
VD/CTL	I	IC601 29pin		CTL	CTL	CTL		CTL	CTL	VD		VD	CTL	CTL
DRUM STOP	O	IC601 50pin	H	L	L	L	L	L	L	L	L	L	L	L
CAP STOP	O	IC601 51pin	H	H	H	L	L	L	L	L	L	L	H	H
$\overline{\text{PB}}$ + DUB	O	IC601 52pin	H	H	H	L	L	L	L	H	H	H	L	L
$\overline{\text{REC·PAUSE}}$	O	IC601 53pin	H	H	H	H	H	H	H	L	H	L	H	H
CUE/REV	O	IC601 54pin	L	L	L	L	L	H	H	L	L	L	L	L
CAP FWD	O	IC601 55pin	H	H	H	H	H	H	L	H	H	H	H	H
$\overline{\text{194 RESET}}$*[1]	O	IC601 27pin	H	H	H	H	H	H	H	H	H	H	H	H

*1 Reset signal for CX194.

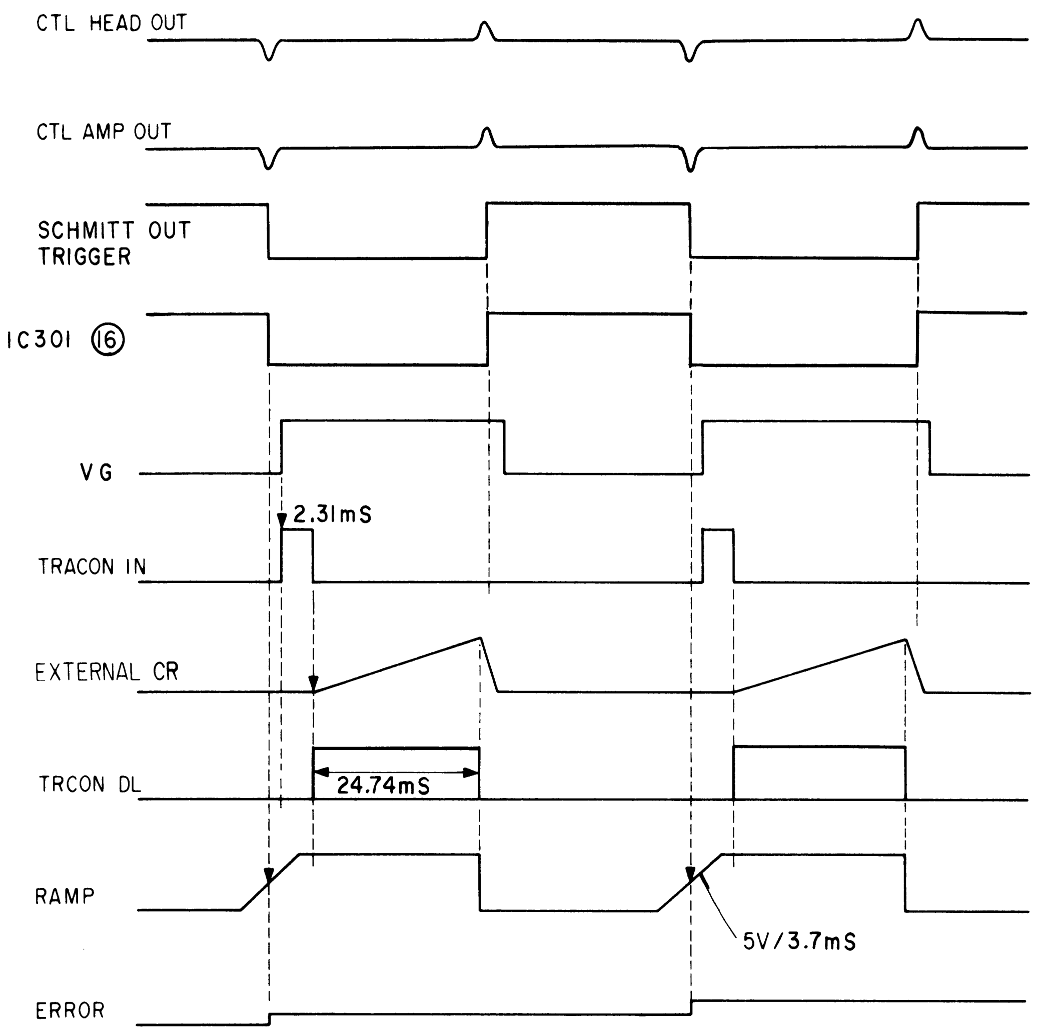
SYSTEM CONTROL CIRCUIT AND AUDIO CIRCUIT INTERFACE

MODE SIGNAL	I/O	Pin No.	STOP (E-E)	FF	REW	PB	PB·PAUSE	PICTURE SEARCH		REC	REC·PAUSE	TIMER REC	FR SEARCH	
								CUE	REV				CUE	REV
A MUTE	O	IC601 7pin	L	L	L	L	H	H	H	L	L	L	H	H
B CONT	O	IC601 8pin	H	H	H	H	H	H	H	L	H	L	H	H
$\overline{\text{REC·PAUSE}}$	O	IC601 53pin	H	H	H	H	H	H	H	L	H	L	H	H
$\overline{\text{PB}}$ + DUB	O	IC601 52pin	H	H	H	L	L	L	L	H	H	H	L	L

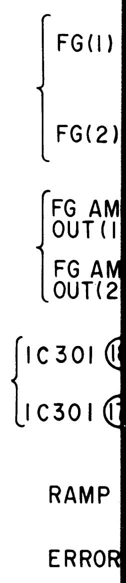
CAPSTAN PHASE SYSTEM TIMING CHART (REC)


Ref VD
Int VD
VG
TRACON IN
REC CTL
FG IN
FG MASKING
(25Hz)
RAMP
5V/3.7mS
ERROR
VOLTAGE

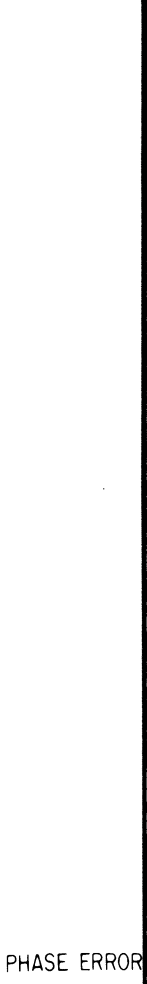
CAPSTAN PHASE SYSTEM TIMING CHART (PB)


CTL HEAD OUT
CTL AMP OUT
SCHMITT OUT
TRIGGER
IC301 ⑯
VG
2.31mS
TRACON IN
EXTERNAL CR
24.74mS
TRCON DL
RAMP
5V/3.7mS
ERROR

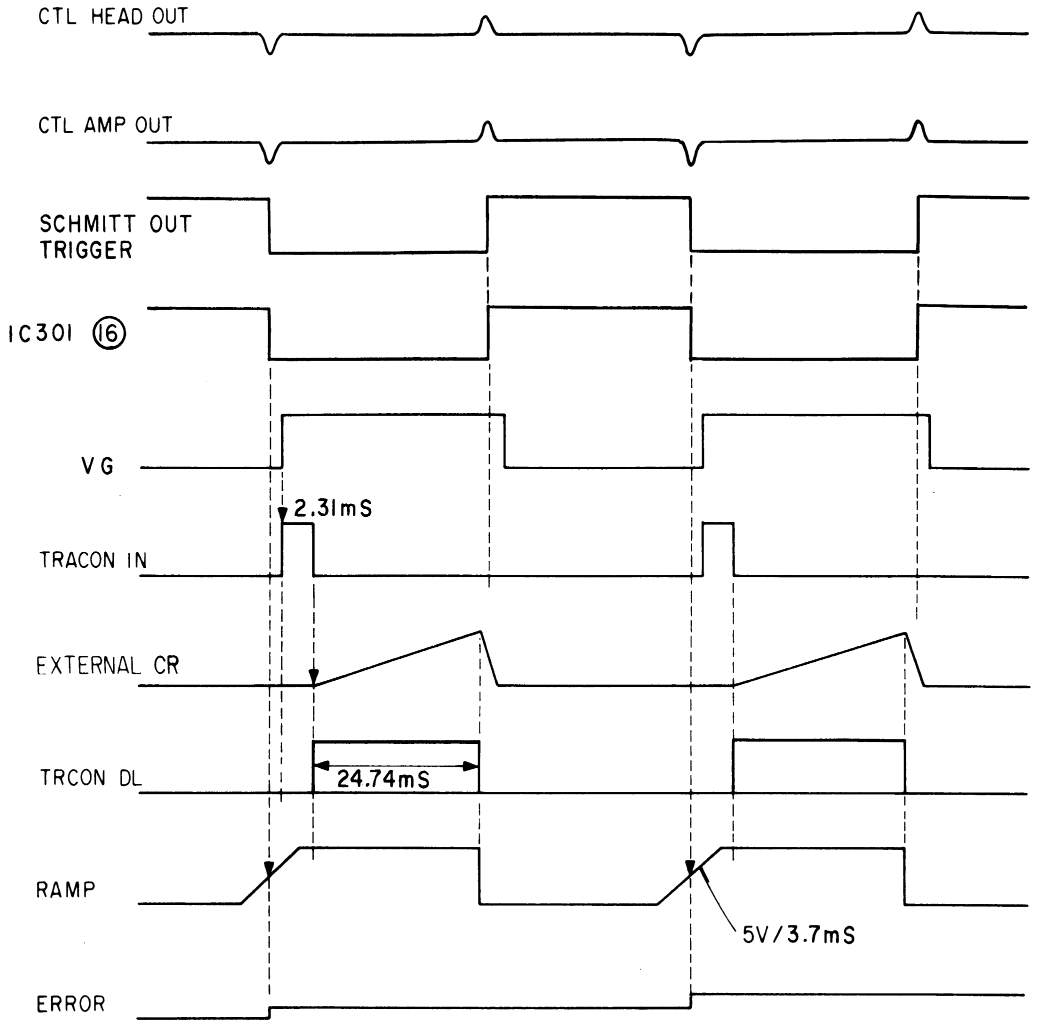
CAPSTAN


FG(1)
FG(2)
FG AM
OUT(1
FG AM
OUT(2
IC301
IC301
RAMP
ERROR

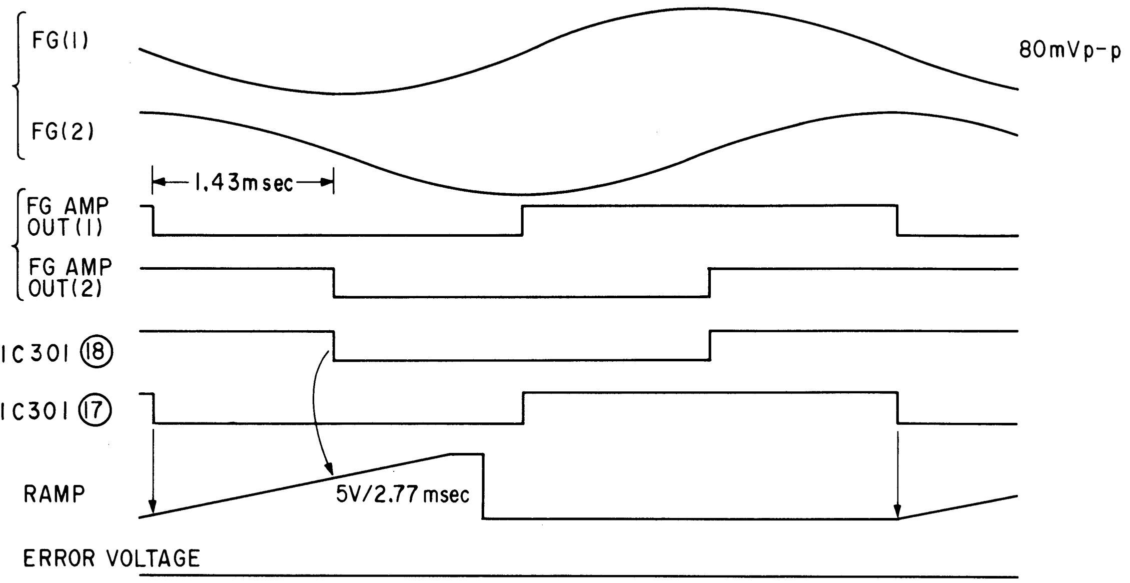
DRUM PH


PHASE ERROR

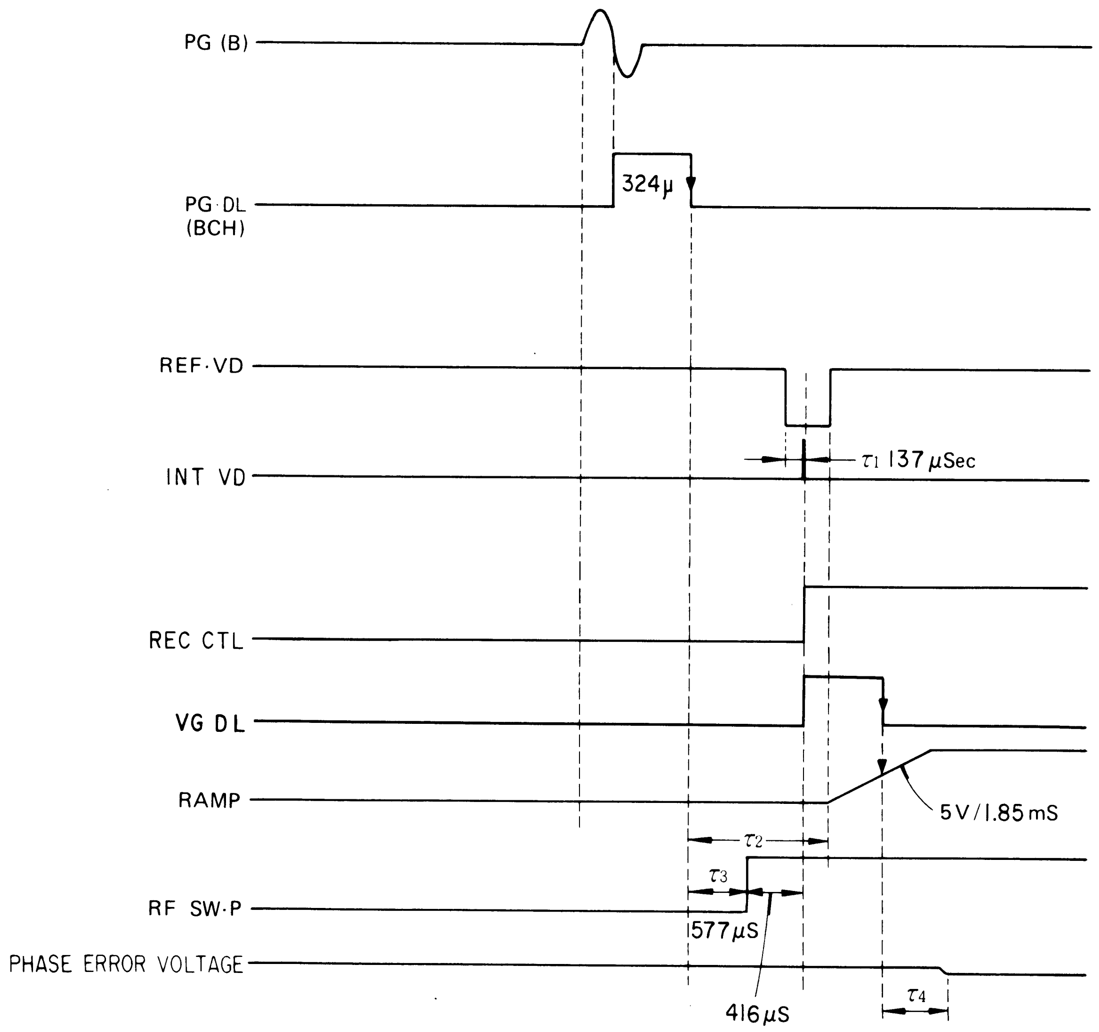
CAPSTAN PHASE SYSTEM TIMING CHART (PB)


CTL HEAD OUT
CTL AMP OUT
SCHMITT OUT
TRIGGER
IC301 ⑯
VG
2.31mS
TRACON IN
EXTERNAL CR
TRCON DL
24.74mS
RAMP
5V/3.7mS
ERROR

CAPSTAN SPEED SYSTEM TIMING CHART

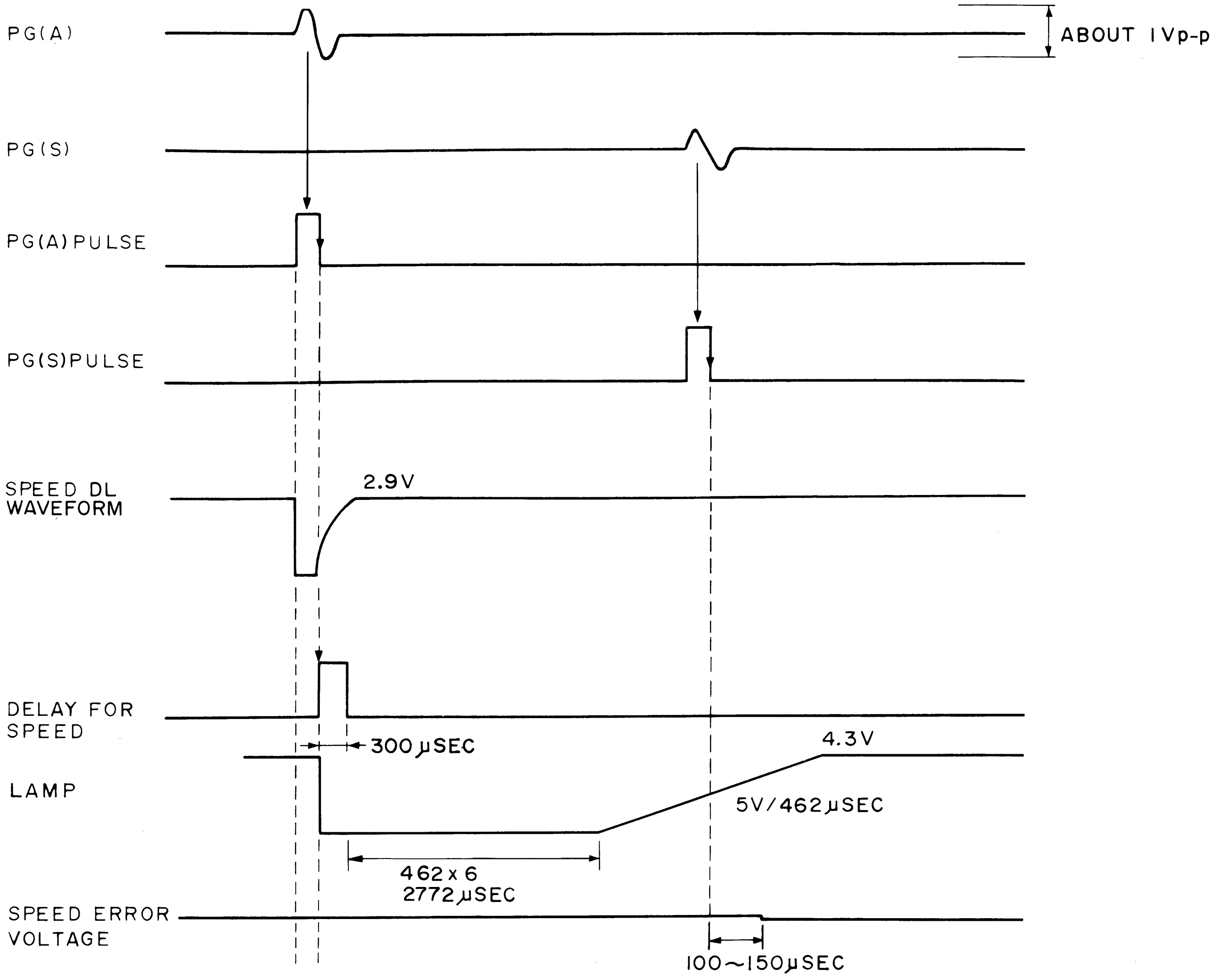

FG(1)
FG(2)
80mVp-p
1.43msec
FG AMP
OUT(1)
FG AMP
OUT(2)
IC301 ⑱
IC301 ⑰
RAMP
5V/2.77msec
ERROR VOLTAGE

DRUM PHASE SYSTEM TIMING CHART

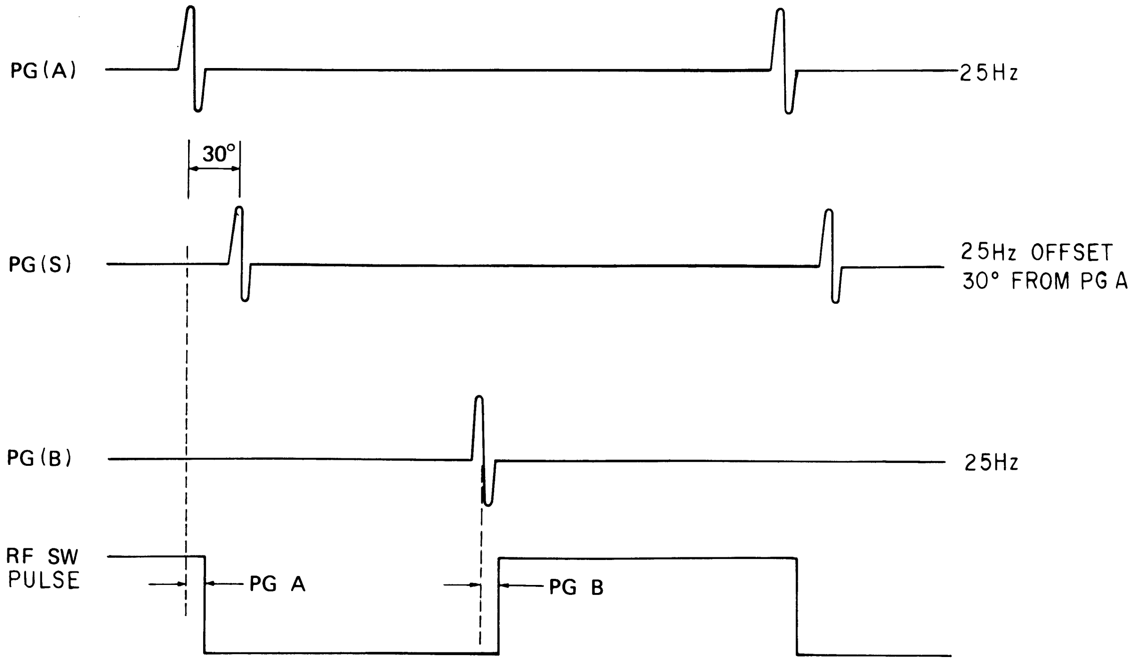

PG (B)
324μ
PG DL
(BCH)
REF·VD
INT VD
τ1 137μSec
REC CTL
VG DL
RAMP
5V/1.85mS
τ2
τ3
RF SW·P
577μS
PHASE ERROR VOLTAGE
416μS
τ4

τ_1 REF VD DETECTION DELAY TIME
$\tau_{2,3}$ DIGITAL DL
τ_4 DATA EXCHANGE TIME

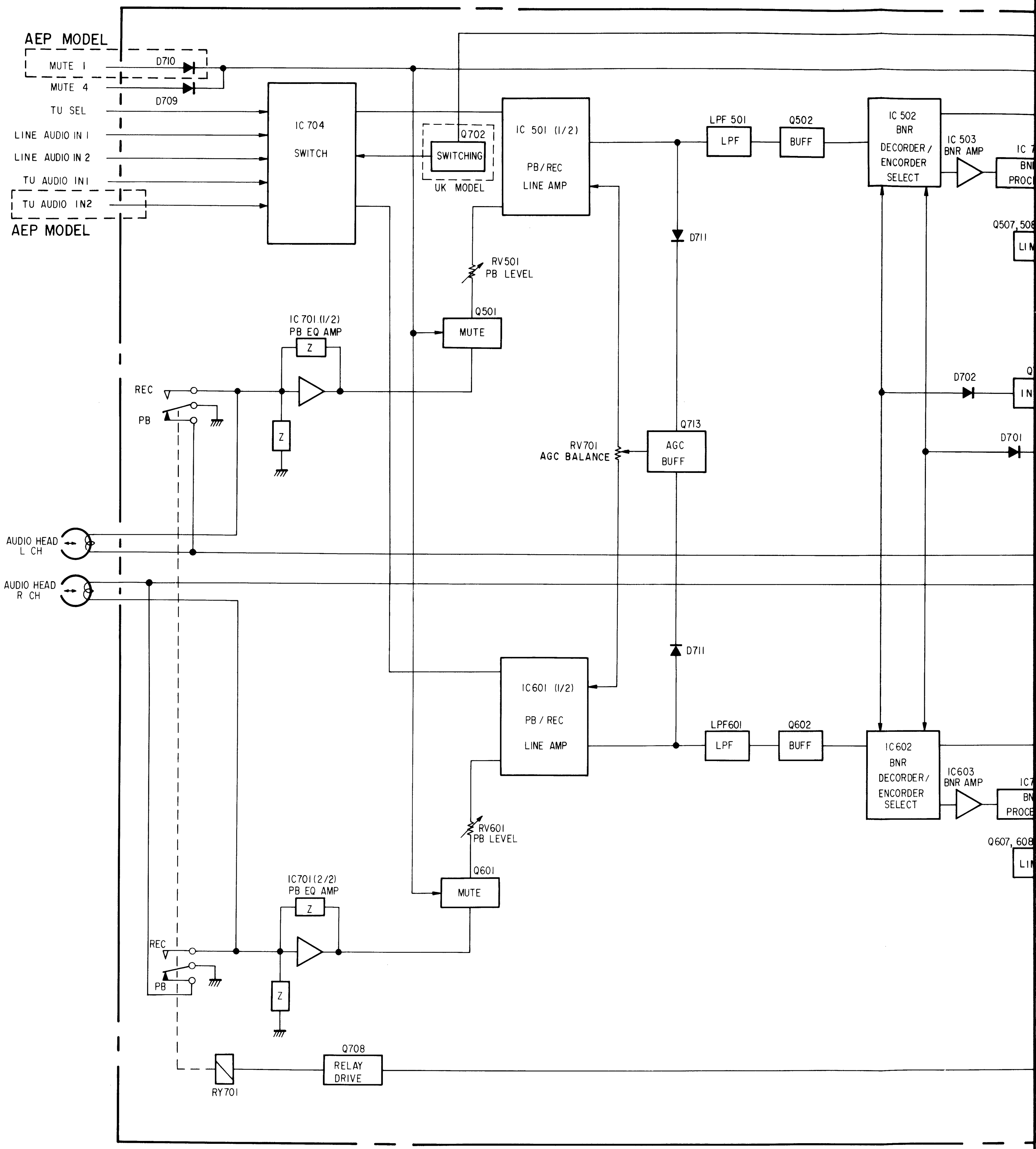
DRUM SPEED SYSTEM TIMING CHART


PG(A)
ABOUT 1Vp-p
PG(S)
PG(A)PULSE
PG(S)PULSE
SPEED DL
WAVEFORM
2.9V
DELAY FOR
SPEED
300μSEC
4.3V
LAMP
5V/462μSEC
462×6
2772μSEC
SPEED ERROR
VOLTAGE
100〜150μSEC

PG SIGNAL TIMING CHART

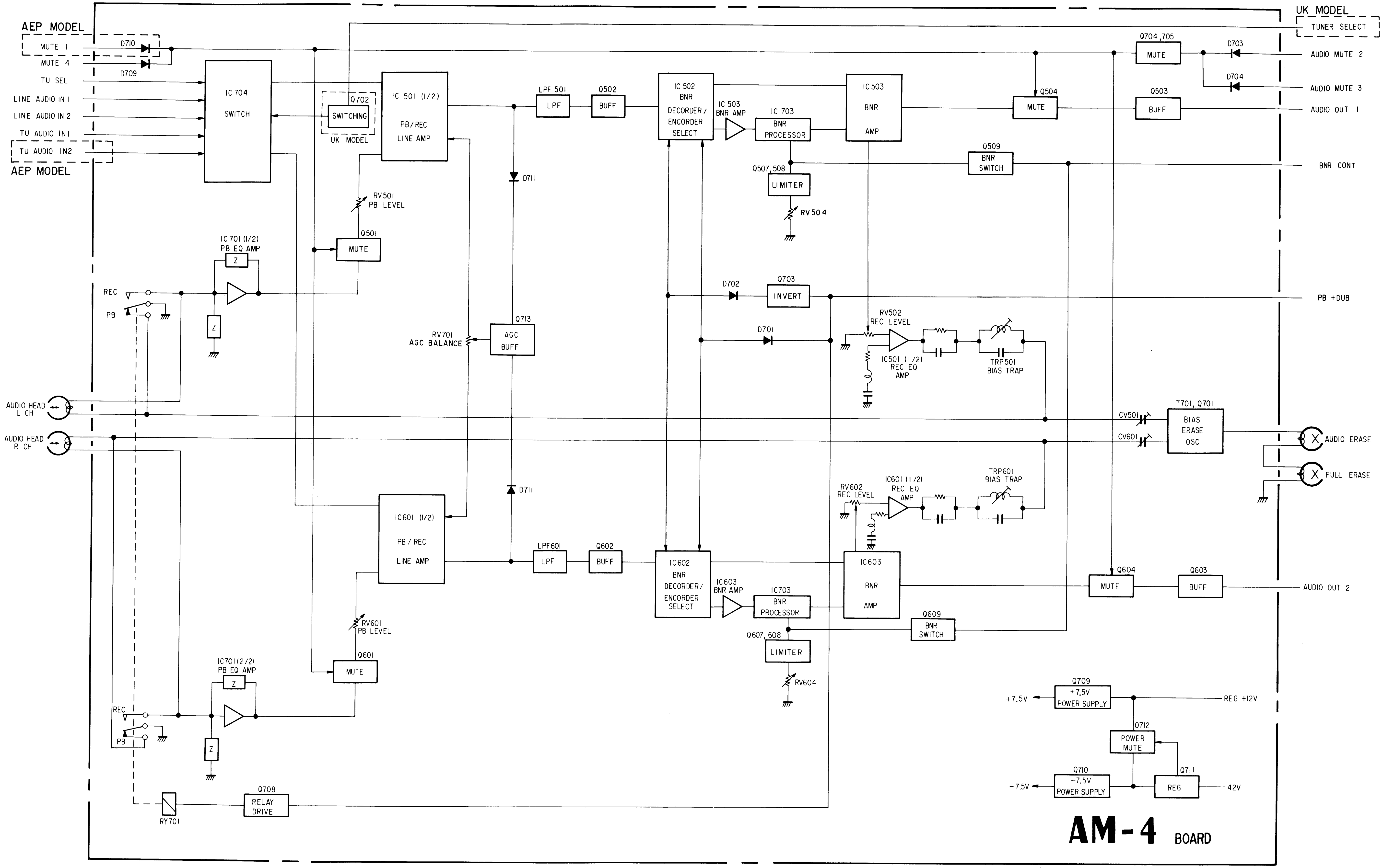

PG(A)
25Hz
30°
PG(S)
25Hz OFFSET
30° FROM PG A
PG(B)
25Hz
RF SW
PULSE
PG A
PG B

AUDIO BLOCK DIAGRAM

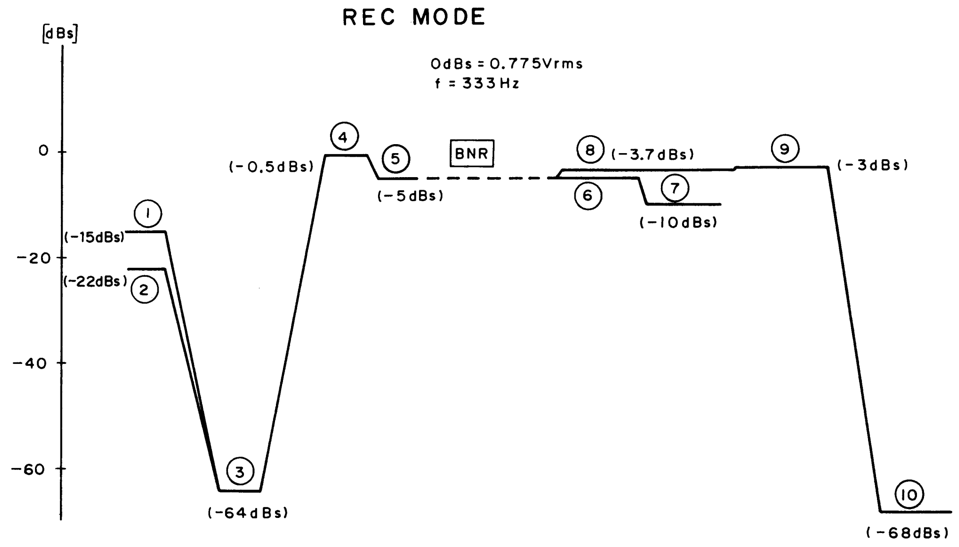

AEP MODEL
MUTE 1
MUTE 4
D710
D709
TU SEL
LINE AUDIO IN 1
LINE AUDIO IN 2
TU AUDIO IN1
TU AUDIO IN2
AEP MODEL
IC 704
SWITCH
Q702
SWITCHING
UK MODEL
IC 501 (1/2)
PB/REC
LINE AMP
LPF 501
LPF
Q502
BUFF
IC 502
BNR
DECORDER/
ENCORDER
SELECT
IC 503
BNR AMP
D711
RV501
PB LEVEL
Q501
MUTE
IC 701 (1/2)
PB EQ AMP
Z
REC
PB
Z
D702
D701
Q713
AGC
BUFF
RV701
AGC BALANCE
AUDIO HEAD
L CH
AUDIO HEAD
R CH
D711
IC601 (1/2)
PB/REC
LINE AMP
LPF601
LPF
Q602
BUFF
IC602
BNR
DECORDER/
ENCORDER
SELECT
IC603
BNR AMP
RV601
PB LEVEL
Q601
MUTE
IC701(2/2)
PB EQ AMP
Z
REC
PB
Z
Q708
RELAY
DRIVE
RY701

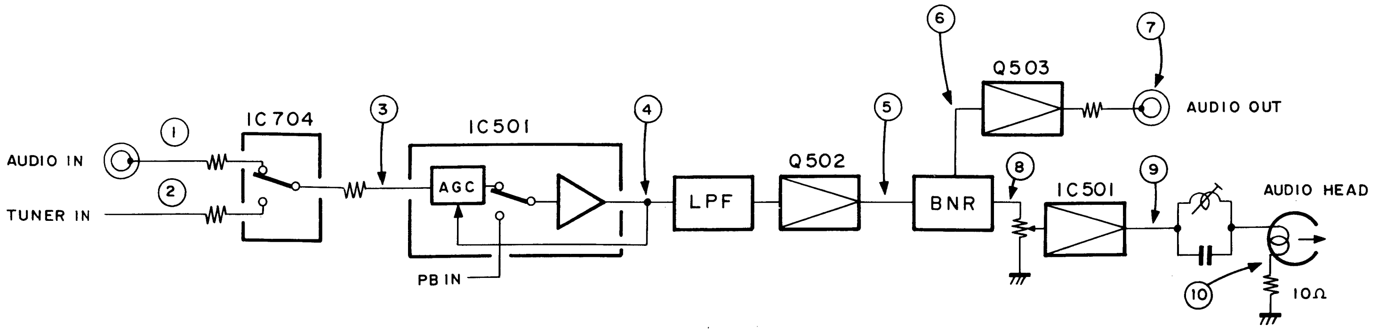
OUT 1Vp-p

AUDIO BLOCK DIAGRAM

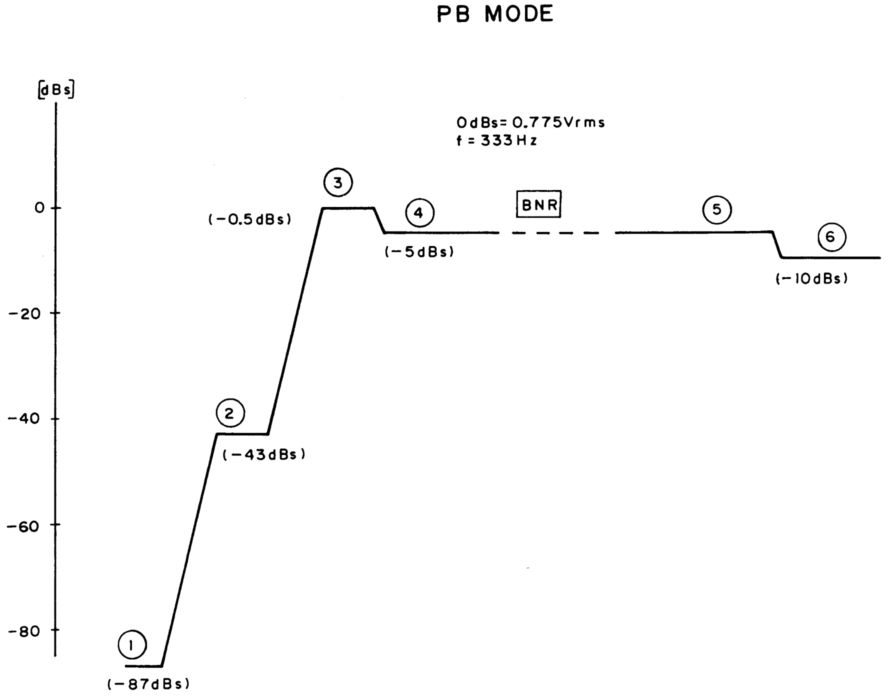

AEP MODEL
MUTE 1
D710
MUTE 4
D709
TU SEL
LINE AUDIO IN 1
LINE AUDIO IN 2
TU AUDIO IN1
TU AUDIO IN2
AEP MODEL
IC704
SWITCH
Q702
SWITCHING
UK MODEL
IC501 (1/2)
PB/REC
LINE AMP
LPF 501
LPF
Q502
BUFF
IC502
BNR
DECORDER/
ENCORDER
SELECT
IC503
BNR AMP
IC703
BNR
PROCESSOR
IC503
BNR
AMP
Q504
MUTE
Q704, 705
MUTE
D703
D704
Q503
BUFF
UK MODEL
TUNER SELECT
AUDIO MUTE 2
AUDIO MUTE 3
AUDIO OUT 1
Q509
BNR
SWITCH
BNR CONT
Q507, 508
LIMITER
RV504
D711
RV501
PB LEVEL
Q501
MUTE
IC701 (1/2)
PB EQ AMP
Z
REC
PB
D702
Q703
INVERT
PB +DUB
D701
RV502
REC LEVEL
IC501 (1/2)
REC EQ
AMP
TRP501
BIAS TRAP
RV701
AGC BALANCE
Q713
AGC
BUFF
AUDIO HEAD
L CH
AUDIO HEAD
R CH
CV501
CV601
T701, Q701
BIAS
ERASE
OSC
AUDIO ERASE
FULL ERASE
D711
RV602
REC LEVEL
IC601 (1/2)
REC EQ
AMP
TRP601
BIAS TRAP
IC601 (1/2)
PB / REC
LINE AMP
LPF601
LPF
Q602
BUFF
IC602
BNR
DECORDER/
ENCORDER
SELECT
IC603
BNR AMP
IC703
BNR
PROCESSOR
IC603
BNR
AMP
Q604
MUTE
Q603
BUFF
AUDIO OUT 2
Q609
BNR
SWITCH
Q607, 608
LIMITER
RV604
RV601
PB LEVEL
Q601
MUTE
IC701 (2/2)
PB EQ AMP
Z
REC
PB
Q708
RELAY
DRIVE
RY701
Q709
+7.5V
POWER SUPPLY
+7.5V
REG +12V
Q712
POWER
MUTE
Q710
-7.5V
POWER SUPPLY
-7.5V
Q711
REG
-42V
AM-4 BOARD

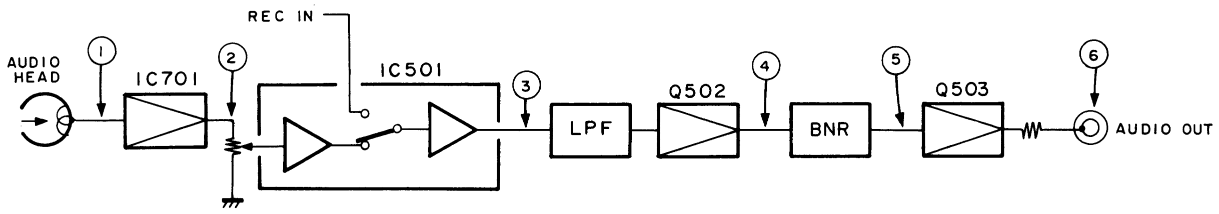
AUDIO LEVEL DIAGRAM (REC)



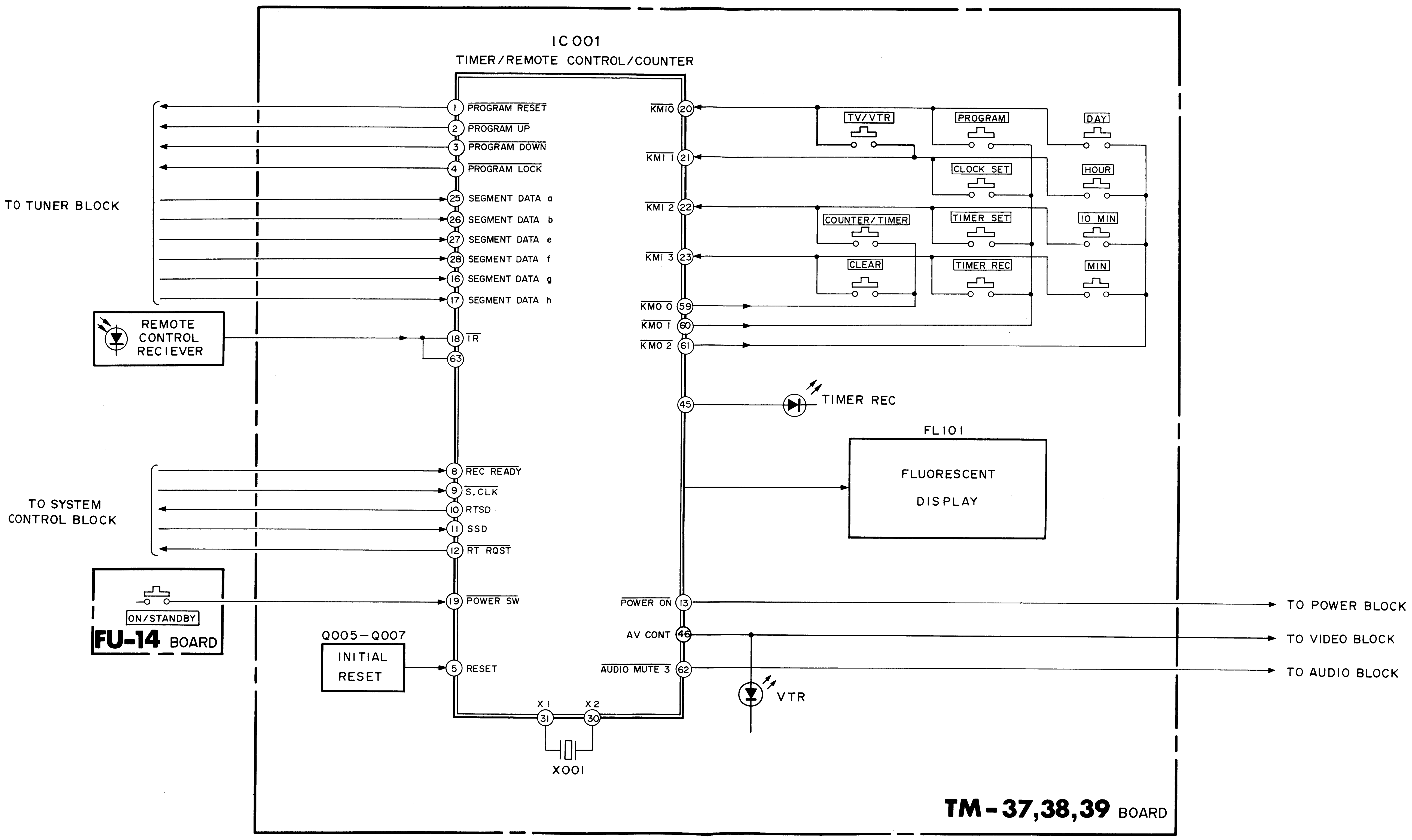

AUDIO IN
TUNER IN
①
②
IC704
③
IC501
AGC
PB IN
④
LPF
Q502
⑤
BNR
⑥
Q503
⑦
AUDIO OUT
⑧
IC501
⑨
AUDIO HEAD
⑩
10Ω

AUDIO LEVEL DIAGRAM (PB)

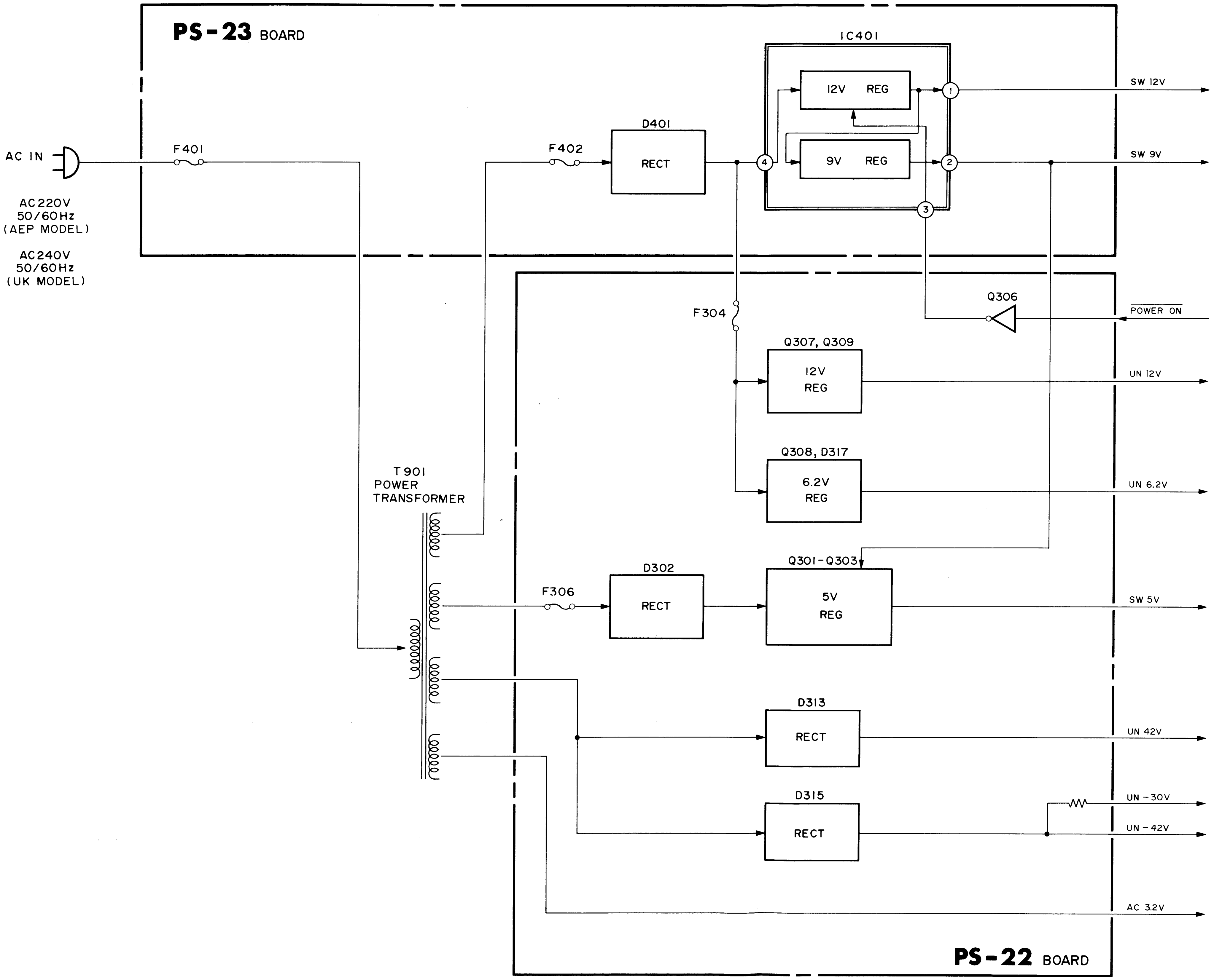



AUDIO HEAD
①
IC701
②
REC IN
IC501
③
LPF
Q502
④
BNR
⑤
Q503
⑥
AUDIO OUT

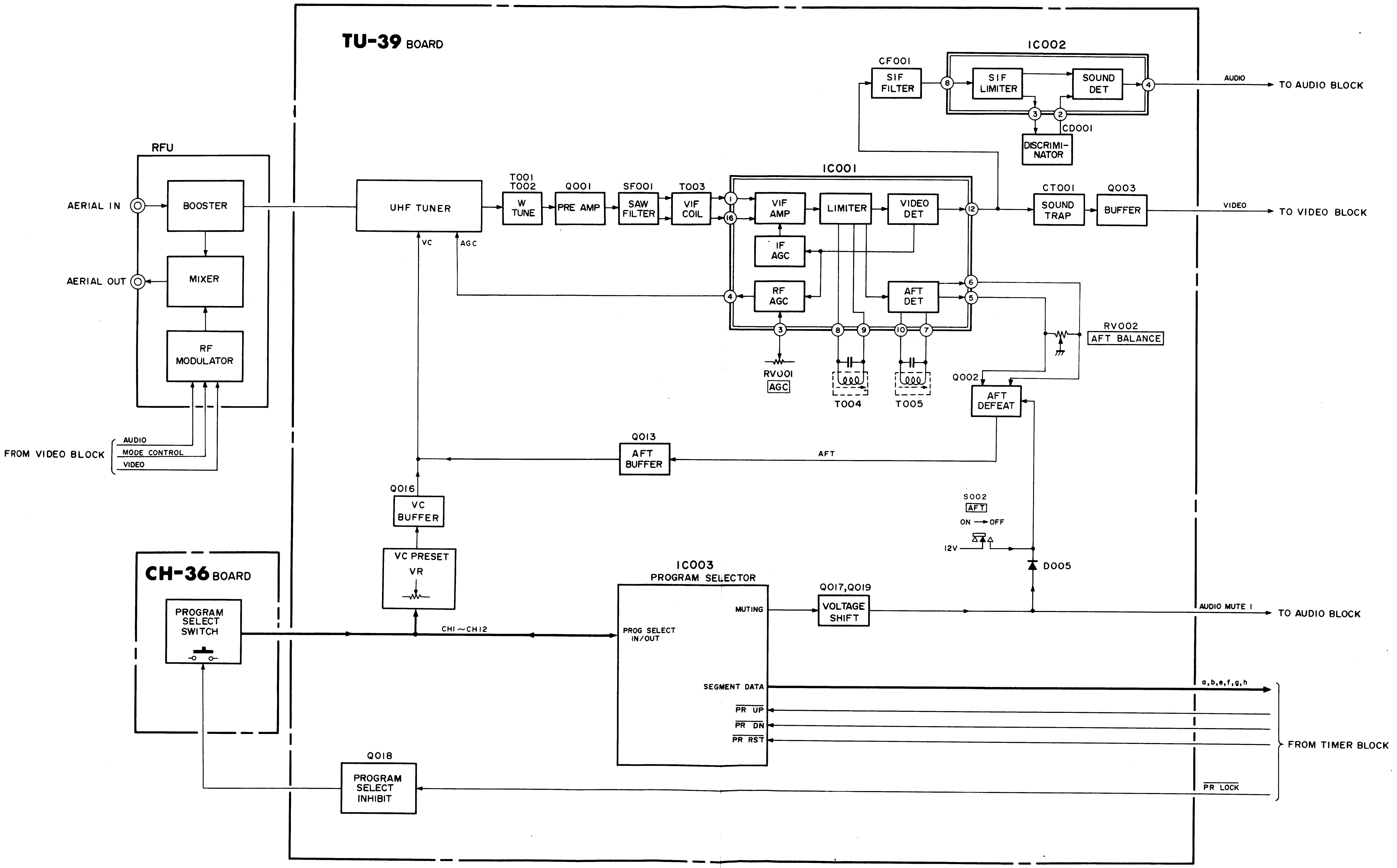
TIMER BLOCK DIAGRAM


IC001
TIMER/REMOTE CONTROL/COUNTER
TO TUNER BLOCK
1 PROGRAM RESET
2 PROGRAM UP
3 PROGRAM DOWN
4 PROGRAM LOCK
25 SEGMENT DATA a
26 SEGMENT DATA b
27 SEGMENT DATA e
28 SEGMENT DATA f
16 SEGMENT DATA g
17 SEGMENT DATA h
REMOTE CONTROL RECIEVER
18 TR
63
TO SYSTEM CONTROL BLOCK
8 REC READY
9 S.CLK
10 RTSD
11 SSD
12 RT RQST
ON/STANDBY
FU-14 BOARD
19 POWER SW
Q005–Q007
INITIAL RESET
5 RESET
X1
X2
31
30
X001
KMI0 20
KMI 1 21
KMI 2 22
KMI 3 23
KMO 0 59
KMO 1 60
KMO 2 61
TV/VTR
PROGRAM
DAY
CLOCK SET
HOUR
COUNTER/TIMER
TIMER SET
10 MIN
CLEAR
TIMER REC
MIN
45
TIMER REC
FL101
FLUORESCENT DISPLAY
POWER ON 13
AV CONT 46
AUDIO MUTE 3 62
VTR
TO POWER BLOCK
TO VIDEO BLOCK
TO AUDIO BLOCK
TM-37,38,39 BOARD

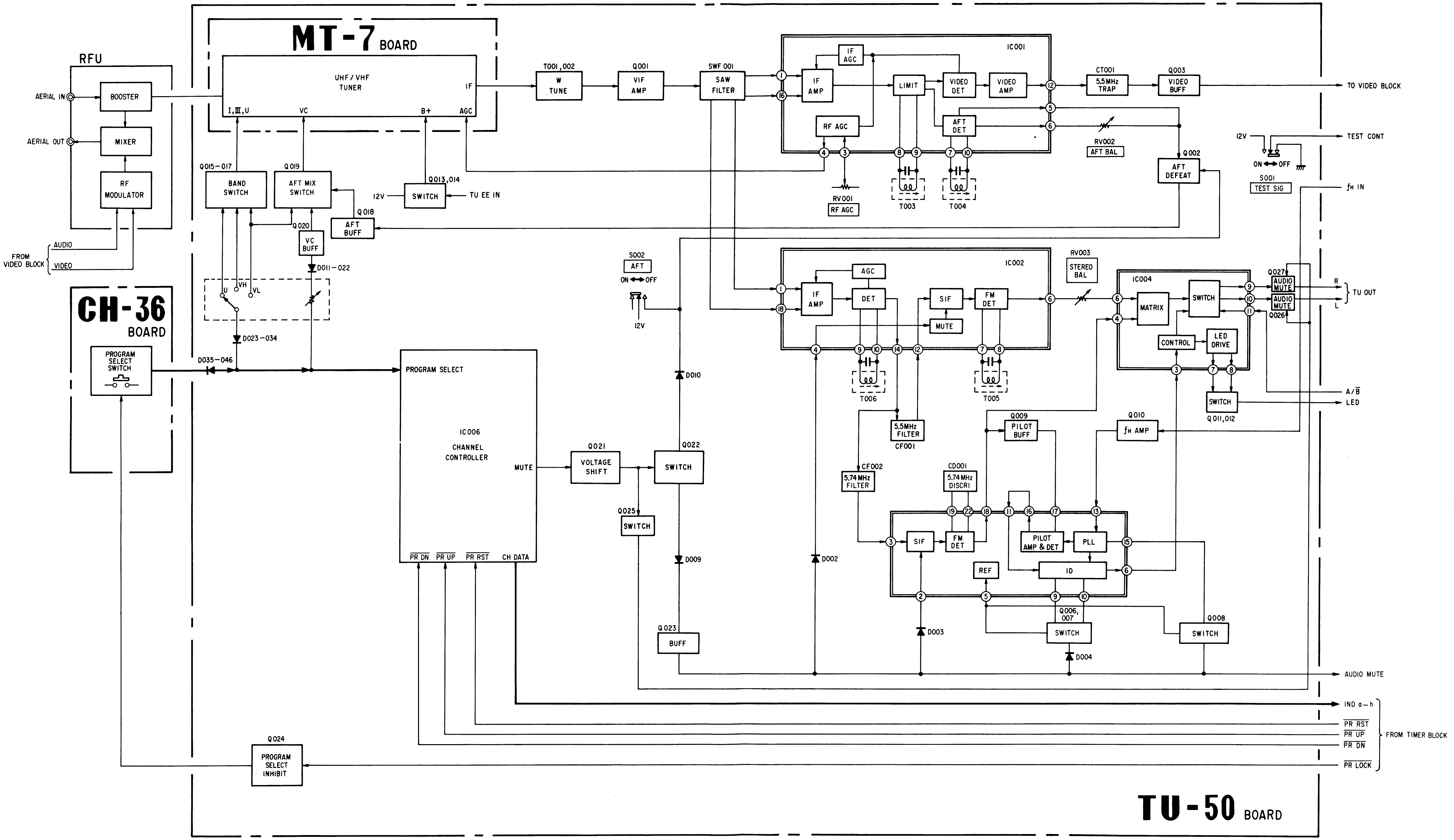
POWER SUPPLY BLOCK DIAGRAM


PS-23 BOARD
AC IN
AC220V
50/60Hz
(AEP MODEL)
AC240V
50/60Hz
(UK MODEL)
F401
F402
D401
RECT
IC401
12V REG
9V REG
1
2
3
4
SW 12V
SW 9V
Q306
POWER ON
F304
Q307, Q309
12V
REG
UN 12V
Q308, D317
6.2V
REG
UN 6.2V
T901
POWER
TRANSFORMER
F306
D302
RECT
Q301-Q303
5V
REG
SW 5V
D313
RECT
UN 42V
D315
RECT
UN -30V
UN -42V
AC 3.2V
PS-22 BOARD

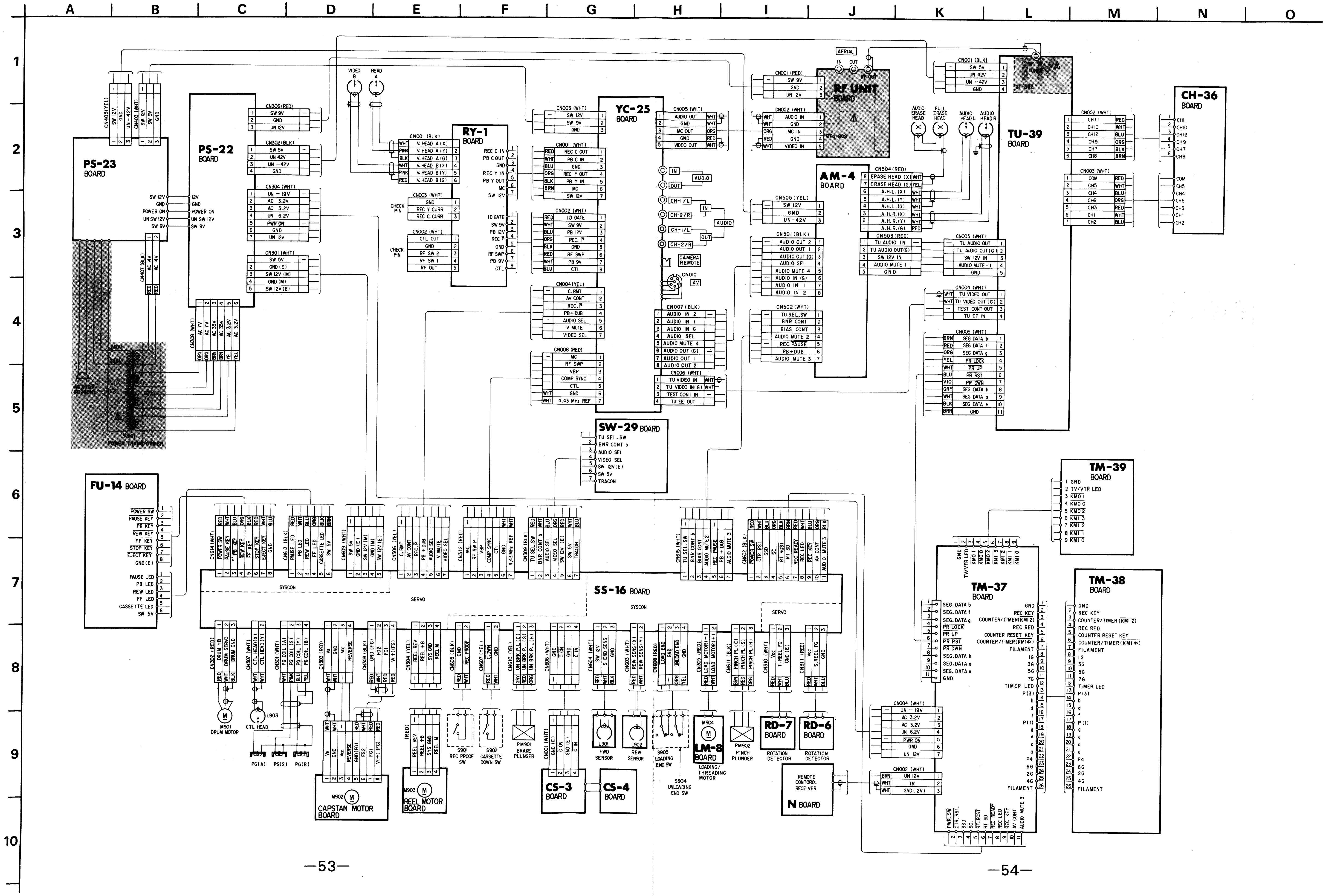
TUNER BLOCK DIAGRAM (UK MODEL)


TU-39 BOARD
RFU
AERIAL IN
BOOSTER
AERIAL OUT
MIXER
RF MODULATOR
FROM VIDEO BLOCK
AUDIO
MODE CONTROL
VIDEO
UHF TUNER
VC
AGC
T001
T002
W TUNE
Q001
PRE AMP
SF001
SAW FILTER
T003
VIF COIL
IC001
VIF AMP
LIMITER
VIDEO DET
IF AGC
RF AGC
AFT DET
RV001
AGC
T004
T005
CF001
SIF FILTER
IC002
SIF LIMITER
SOUND DET
CD001
DISCRIMI-NATOR
AUDIO
TO AUDIO BLOCK
CT001
SOUND TRAP
Q003
BUFFER
VIDEO
TO VIDEO BLOCK
RV002
AFT BALANCE
Q002
AFT DEFEAT
Q013
AFT BUFFER
AFT
Q016
VC BUFFER
VC PRESET VR
S002
AFT
ON → OFF
12V
D005
CH-36 BOARD
PROGRAM SELECT SWITCH
CH1 ~ CH12
IC003
PROGRAM SELECTOR
PROG SELECT IN/OUT
MUTING
Q017,Q019
VOLTAGE SHIFT
AUDIO MUTE 1
TO AUDIO BLOCK
SEGMENT DATA
a,b,e,f,g,h
PR UP
PR DN
PR RST
FROM TIMER BLOCK
Q018
PROGRAM SELECT INHIBIT
PR LOCK

TUNER BLOCK DIAGRAM (AEP MODEL)


MT-7 BOARD
RFU
AERIAL IN
AERIAL OUT
BOOSTER
MIXER
RF MODULATOR
FROM VIDEO BLOCK
AUDIO
VIDEO
UHF / VHF TUNER
I, III, U
VC
B+
AGC
IF
Q015–017
BAND SWITCH
Q019
AFT MIX SWITCH
Q020
VC BUFF
Q018
AFT BUFF
Q013, 014
SWITCH
12V
TU EE IN
D011–022
U
VH
VL
D023–034
D035–046
CH-36 BOARD
PROGRAM SELECT SWITCH
T001, 002
W TUNE
Q001
VIF AMP
SWF 001
SAW FILTER
IC001
IF AGC
IF AMP
RF AGC
LIMIT
VIDEO DET
VIDEO AMP
AFT DET
RV001
RF AGC
T003
T004
CT001
5.5MHz TRAP
Q003
VIDEO BUFF
TO VIDEO BLOCK
RV002
AFT BAL
Q002
AFT DEFEAT
12V
TEST CONT
ON ↔ OFF
S001
TEST SIG
fH IN
S002
AFT
ON ↔ OFF
12V
IC002
AGC
IF AMP
DET
SIF
FM DET
MUTE
T006
T005
RV003
STEREO BAL
IC004
MATRIX
SWITCH
CONTROL
LED DRIVE
Q027
AUDIO MUTE
AUDIO MUTE
Q026
R
L
TU OUT
SWITCH
Q011, 012
A/B
LED
PROGRAM SELECT
IC006
CHANNEL CONTROLLER
MUTE
PR DN
PR UP
PR RST
CH DATA
Q021
VOLTAGE SHIFT
Q022
SWITCH
D010
Q025
SWITCH
D009
Q023
BUFF
D002
5.5MHz FILTER
CF001
CF002
5.74MHz FILTER
CD001
5.74MHz DISCRI
Q009
PILOT BUFF
Q010
fH AMP
SIF
FM DET
PILOT AMP & DET
PLL
REF
ID
D003
Q006, 007
SWITCH
D004
Q008
SWITCH
AUDIO MUTE
IND a–h
PR RST
PR UP
PR DN
PR LOCK
FROM TIMER BLOCK
Q024
PROGRAM SELECT INHIBIT
TU-50 BOARD

FRAME SCHEMATIC DIAGRAM (UK MODEL)


A
B
C
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K
L
M
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1
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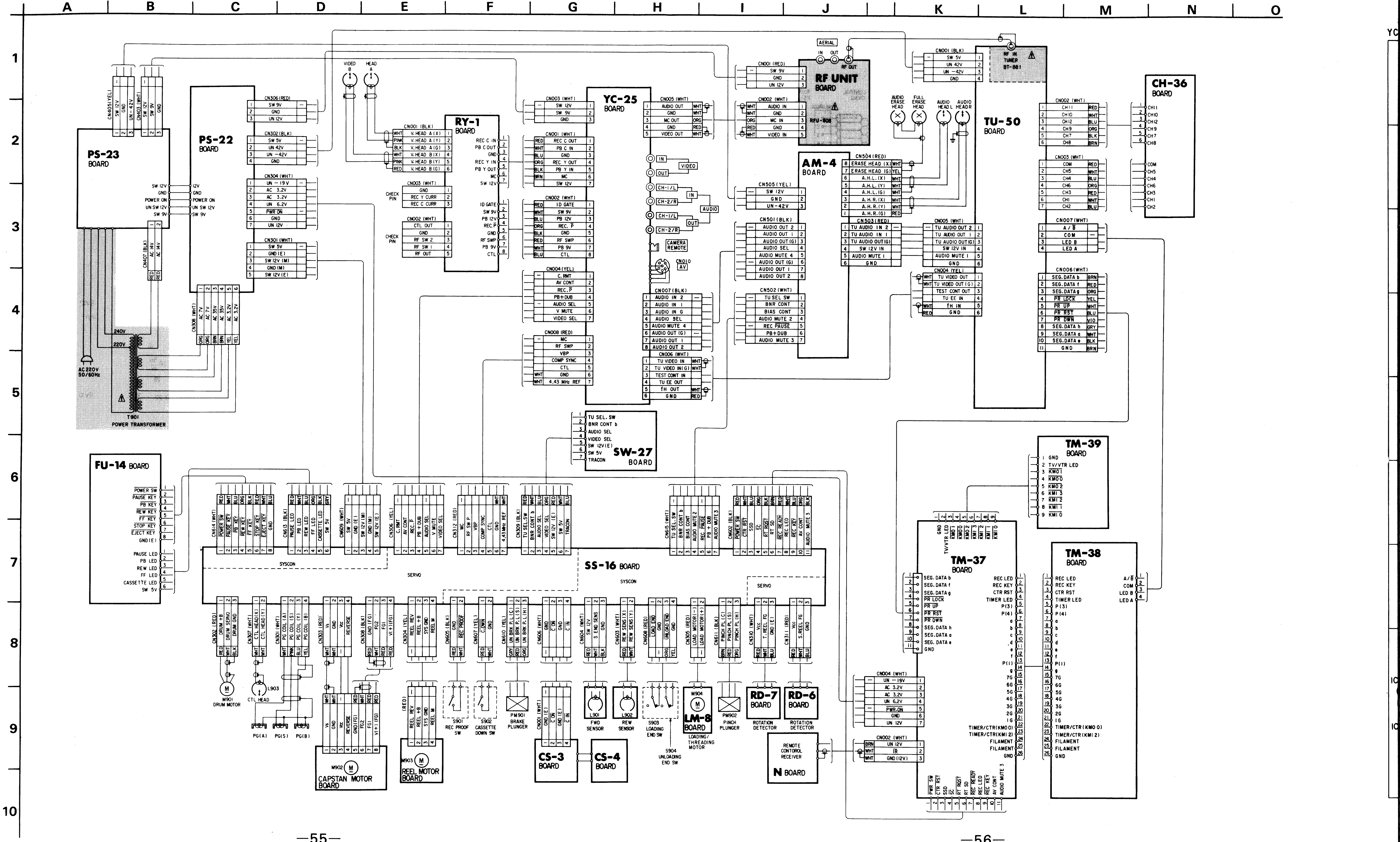
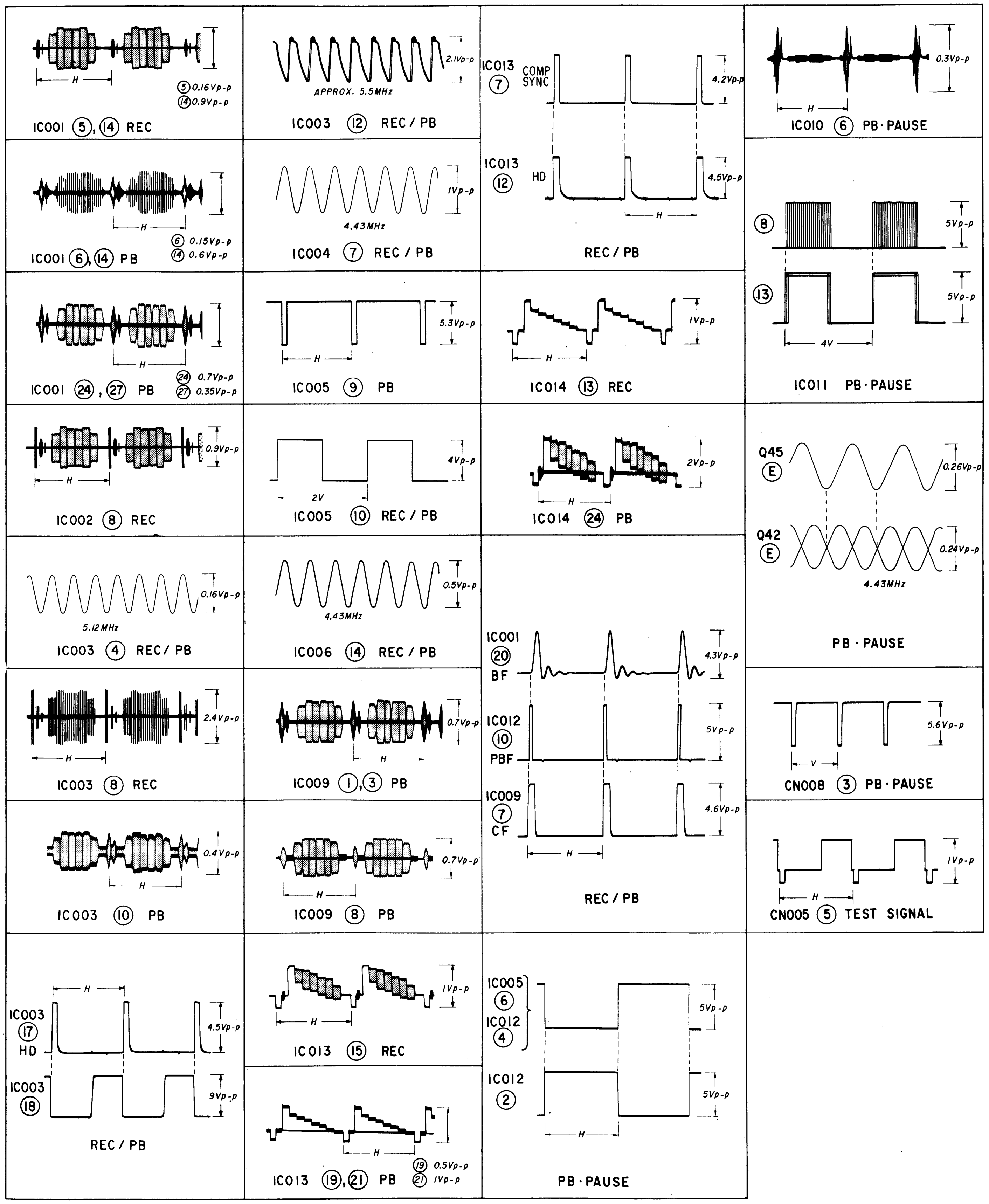
5
6
7
8
9
10
PS-23 BOARD
PS-22 BOARD
CN405 (YEL)
CN403 (WHT)
CN407 (BLK)
CN306 (RED)
CN302 (BLK)
CN304 (WHT)
CN301 (WHT)
CN308 (WHT)
SW 12V
GND
POWER ON
UN SW 12V
SW 9V
UN -19V
AC 3.2V
UN 6.2V
PWR ON
UN 12V
SW 5V
UN 42V
UN -42V
AC 14V
AC 7V
AC 35V
240V
220V
AC 240V 50/60Hz
T501 POWER TRANSFORMER
VIDEO B
HEAD A
RY-1 BOARD
CN001 (BLK)
V. HEAD A (X)
V. HEAD A (Y)
V. HEAD A (G)
V. HEAD B (X)
V. HEAD B (Y)
V. HEAD B (G)
REC C IN
PB C OUT
REC Y IN
PB Y OUT
MC
SW 12V
CN003 (WHT)
REC Y CURR
REC C CURR
CHECK PIN
CN002 (WHT)
CTL OUT
RF SW 2
RF SW 1
RF OUT
ID GATE
PB 12V
REC. P̄
RF SWP
PB 9V
CTL
YC-25 BOARD
CN001 (WHT)
REC C OUT
PB C IN
REC Y OUT
PB Y IN
ID GATE
CN004 (YEL)
C. RMT
AV CONT
PB+DUB
AUDIO SEL
V MUTE
VIDEO SEL
CN008 (RED)
VBP
COMP SYNC
4.43 MHz REF
CN005 (WHT)
AUDIO OUT
MC OUT
VIDEO OUT
IN
OUT
AUDIO
CH-1/L
CH-2/R
CAMERA REMOTE
CN010
AV
CN007 (BLK)
AUDIO IN 2
AUDIO IN 1
AUDIO IN G
AUDIO SEL
AUDIO MUTE 4
AUDIO OUT (G)
AUDIO OUT 1
AUDIO OUT 2
CN006 (WHT)
TU VIDEO IN
TU VIDEO IN (G)
TEST CONT IN
TU EE OUT
SW-29 BOARD
TU SEL. SW
BNR CONT b
AUDIO SEL
VIDEO SEL
SW 12V (E)
SW 5V
TRACON
AERIAL
RF OUT
RF UNIT BOARD
RFU-809
CN001 (RED)
CN002 (WHT)
AUDIO IN
MC IN
VIDEO IN
AM-4 BOARD
CN505 (YEL)
CN501 (BLK)
AUDIO OUT 2
AUDIO OUT 1
AUDIO OUT (G)
AUDIO SEL
AUDIO MUTE 4
AUDIO IN (G)
AUDIO IN 1
AUDIO IN 2
CN502 (WHT)
TU SEL. SW
BNR CONT
BIAS CONT
AUDIO MUTE 2
REC PAUSE
PB+DUB
AUDIO MUTE 3
CN504 (RED)
ERASE HEAD (X)
ERASE HEAD (G)
A.H.L. (X)
A.H.L. (Y)
A.H.L. (G)
A.H.R. (X)
A.H.R. (Y)
A.H.R. (G)
CN503 (RED)
TU AUDIO IN
TU AUDIO OUT (G)
SW 12V IN
AUDIO MUTE 1
AUDIO ERASE HEAD
FULL ERASE HEAD
AUDIO HEAD L
AUDIO HEAD R
RF TUNER
BT-882
TU-39 BOARD
CN001 (BLK)
CN005 (WHT)
TU AUDIO OUT
TU AUDIO OUT (G)
AUDIO MUTE 1
CN004 (WHT)
TU VIDEO OUT
TU VIDEO OUT (G)
TEST CONT OUT
TU EE IN
CN006 (WHT)
SEG DATA b
SEG DATA f
SEG DATA g
PR LOCK
PR UP
PR RST
PR DWN
SEG DATA h
SEG DATA a
SEG DATA e
CN002 (WHT)
CH11
CH10
CH12
CH9
CH7
CH8
CN003 (WHT)
COM
CH5
CH4
CH6
CH3
CH1
CH2
CH-36 BOARD
FU-14 BOARD
POWER SW
PAUSE KEY
PB KEY
REW KEY
FF KEY
STOP KEY
EJECT KEY
GND (E)
PAUSE LED
PB LED
REW LED
FF LED
CASSETTE LED
SW 5V
SS-16 BOARD
SYSCON
SERVO
CN614 (WHT)
CN613 (BLK)
CN609 (WHT)
CN506 (YEL)
CN312 (RED)
CN309 (BLK)
CN615 (WHT)
CN602 (BLK)
CN302 (RED)
DRUM +B
DRUM SERVO
DRUM GND
CN307 (WHT)
CTL HEAD (X)
CTL HEAD (Y)
CN301 (WHT)
PG COIL (A)
PG COIL (Y)
PG COIL (B)
CN303 (RED)
REVERSE
CN308 (RED)
FG2
FG1
CN304 (YEL)
REEL REV
REEL +B
SYS GND
REEL M
CN605 (RED)
REC PROOF
CN607 (YEL)
C.DWN
CN610 (WHT)
UN BRK P.L (C)
UN BRK P.L (S)
UN BRK P.L (H)
CN606 (WHT)
C IN
C ON
CN604 (WHT)
S EMI SENS
CN603 (WHT)
REW SENS (X)
REW SENS (Y)
CN608 (RED)
LOAD END
UNLOAD END
CN305 (RED)
LOAD MOTOR (+)
LOAD MOTOR (-)
CN611 (BLK)
PINCH PL (C)
PINCH PL (S)
PINCH PL (H)
CN310 (WHT)
T. REEL FG
CN311 (RED)
S. REEL FG
M901 DRUM MOTOR
L903 CTL HEAD
PG (A)
PG (S)
PG (B)
M902 CAPSTAN MOTOR BOARD
M903 REEL MOTOR BOARD
S901 REC PROOF SW
S902 CASSETTE DOWN SW
PM901 BRAKE PLUNGER
CN001 (WHT)
CS-3 BOARD
CS-4 BOARD
L901 FWD SENSOR
L902 REW SENSOR
S903 LOADING END SW
S904 UNLOADING END SW
M904
LM-8 BOARD
LOADING/THREADING MOTOR
PM902 PINCH PLUNGER
RD-7 BOARD
RD-6 BOARD
ROTATION DETECTOR
REMOTE CONTOROL RECEIVER
N BOARD
CN004 (WHT)
CN002 (WHT)
IR
GND (12V)
TM-39 BOARD
GND
TV/VTR LED
KMI 0
KMO 0
KMO 1
KMO 2
KMI 1
KMI 2
KMI 3
TM-37 BOARD
SEG. DATA b
SEG. DATA f
SEG. DATA g
PR LOCK
PR UP
PR RST
PR DWN
SEG. DATA h
SEG. DATA a
SEG. DATA e
REC KEY
COUNTER/TIMER (KMI 2)
REC RED
COUNTER RESET KEY
COUNTER/TIMER (KMI Φ)
FILAMENT
1G
3G
5G
7G
TIMER LED
P(3)
P(1)
P4
6G
2G
4G
PWR. SW
CTR. RST.
SSO
SSI
RT. RST
RT SD
REC READY
REC LED
REC KEY
AV CONT
AUDIO MUTE 3
TM-38 BOARD
REC KEY
COUNTER/TIMER (KMI 2)
REC RED
COUNTER RESET KEY
COUNTER/TIMER (KMI Φ)
FILAMENT
TIMER LED

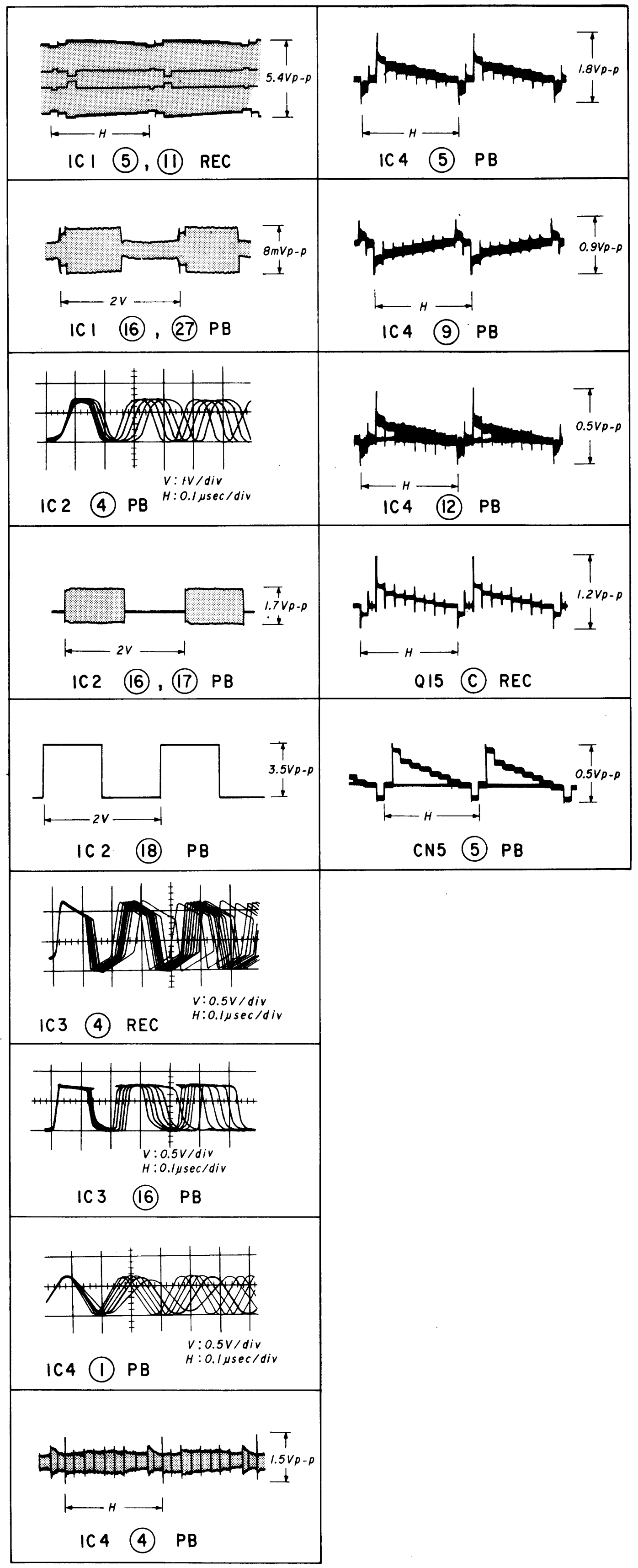
FRAME SCHEMATIC DIAGRAM (AEP MODEL)


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
PS-23 BOARD
PS-22 BOARD
RY-1 BOARD
YC-25 BOARD
RF UNIT BOARD
RFU-806
AERIAL
IN
OUT
RF OUT
RF IN
TUNER
BT-881
AM-4 BOARD
TU-50 BOARD
CH-36 BOARD
SW-27 BOARD
FU-14 BOARD
SS-16 BOARD
SYSCON
SERVO
TM-39 BOARD
TM-37 BOARD
TM-38 BOARD
AC 220V 50/60Hz
240V
220V
T901 POWER TRANSFORMER
VIDEO B
HEAD A
CHECK PIN
AUDIO ERASE HEAD
FULL ERASE HEAD
AUDIO HEAD L
AUDIO HEAD R
VIDEO
AUDIO
IN
OUT
CH-1/L
CH-2/R
CAMERA REMOTE
CN010 AV
M901 DRUM MOTOR
CTL HEAD
L903
PG(A)
PG(S)
PG(B)
M902 CAPSTAN MOTOR BOARD
M903 REEL MOTOR BOARD
S901 REC PROOF SW
S902 CASSETTE DOWN SW
PM901 BRAKE PLUNGER
CS-3 BOARD
CS-4 BOARD
L901 FWD SENSOR
L902 REW SENSOR
S903 LOADING END SW
S904 UNLOADING END SW
M904 LM-8 BOARD
LOADING/THREADING MOTOR
PM902 PINCH PLUNGER
RD-7 BOARD
ROTATION DETECTOR
RD-6 BOARD
ROTATION DETECTOR
REMOTE CONTROL RECEIVER
N BOARD
CN405 (YEL)
CN403 (WHT)
CN407 (BLK)
CN308 (WHT)
CN306 (RED)
CN302 (BLK)
CN304 (WHT)
CN301 (WHT)
CN001 (BLK)
CN003 (WHT)
CN002 (WHT)
CN001 (WHT)
CN002 (WHT)
CN004 (YEL)
CN008 (RED)
CN005 (WHT)
CN007 (BLK)
CN006 (WHT)
CN001 (RED)
CN002 (WHT)
CN505 (YEL)
CN501 (BLK)
CN502 (WHT)
CN504 (RED)
CN503 (RED)
CN005 (WHT)
CN004 (YEL)
CN001 (BLK)
CN002 (WHT)
CN003 (WHT)
CN007 (WHT)
CN006 (WHT)
CN614 (WHT)
CN613 (BLK)
CN609 (WHT)
CN306 (YEL)
CN312 (RED)
CN309 (BLK)
CN615 (WHT)
CN602 (BLK)
CN302 (RED)
CN307 (WHT)
CN301 (WHT)
CN303 (RED)
CN308 (BLK)
CN304 (YEL)
CN605 (BLK)
CN607 (YEL)
CN610 (WHT)
CN606 (WHT)
CN604 (WHT)
CN603 (WHT)
CN608 (RED)
CN305 (RED)
CN611 (BLK)
CN310 (WHT)
CN311 (RED)
CN004 (WHT)
CN002 (WHT)
CN001 (WHT)
SW 12V
GND
UN -42V
SW 9V
UN 12V
SW 5V
UN 42V
AC 3.2V
UN 6.2V
PWR ON
UN -19V
SW 12V (M)
GND (M)
SW 12V (E)
GND (E)
POWER ON
UN SW 12V
AC 14V
AC 7V
AC 35V
V. HEAD A (X)
V. HEAD A (Y)
V. HEAD A (G)
V. HEAD B (X)
V. HEAD B (Y)
V. HEAD B (G)
REC C IN
PB C OUT
REC Y IN
PB Y OUT
MC
REC Y CURR
REC C CURR
CTL OUT
RF SW 2
RF SW 1
RF OUT
ID GATE
PB 12V
REC P
RF SWP
PB 9V
CTL
C. RMT
AV CONT
PB+DUB
AUDIO SEL
V MUTE
VIDEO SEL
VBP
COMP SYNC
4.43 MHz REF
AUDIO OUT
MC OUT
VIDEO OUT
AUDIO IN
MC IN
VIDEO IN
AUDIO IN 2
AUDIO IN 1
AUDIO IN G
AUDIO MUTE 4
AUDIO OUT (G)
AUDIO OUT 1
AUDIO OUT 2
TU VIDEO IN
TU VIDEO IN (G)
TEST CONT IN
TU EE OUT
fH OUT
TU SEL. SW
BNR CONT b
AUDIO SEL
VIDEO SEL
SW 12V (E)
SW 5V
TRACON
ERASE HEAD (X)
ERASE HEAD (G)
A.H.L. (X)
A.H.L. (Y)
A.H.L. (G)
A.H.R. (X)
A.H.R. (Y)
A.H.R. (G)
TU AUDIO IN 2
TU AUDIO IN 1
TU AUDIO OUT (G)
SW 12V IN
AUDIO MUTE 1
BNR CONT
BIAS CONT
AUDIO MUTE 2
REC PAUSE
AUDIO MUTE 3
TU AUDIO OUT 2
TU AUDIO OUT 1
TU VIDEO OUT
TU VIDEO OUT (G)
TEST CONT OUT
TU EE IN
fH IN
CH11
CH10
CH12
CH9
CH7
CH8
COM
CH5
CH4
CH6
CH3
CH1
CH2
A/B
LED B
LED A
SEG. DATA b
SEG. DATA f
SEG. DATA g
PR LOCK
PR UP
PR RST
PR DWN
SEG. DATA h
SEG. DATA a
SEG. DATA e
POWER SW
PAUSE KEY
PB KEY
REW KEY
FF KEY
STOP KEY
EJECT KEY
PAUSE LED
PB LED
REW LED
FF LED
CASSETTE LED
DRUM +B
DRUM SERVO
DRUM GND
CTL HEAD (X)
CTL HEAD (Y)
PG COIL (A)
PG COIL (S)
PG COIL (B)
Vs
Vcc
REVERSE
GND (FG)
FG2
FG1
V(+) (FG)
REEL REV
REEL +B
SYS GND
REEL M
REC PROOF
C.DWN
UN BRK P.L (C)
UN BRK P.L (H)
C.ON
S END SENS
REW SENS (X)
REW SENS (Y)
LOAD END
UNLOAD END
LOAD MOTOR (-)
LOAD MOTOR (+)
PINCH PL (S)
PINCH PL (C)
T. REEL FG
S. REEL FG
CTR RST
SSD
SC
RT RGST
RT SD
REC READY
REC LED
REC KEY
TIMER LED
TV/VTR LED
KMO1
KMO0
KMO2
KMI3
KMI2
KMI1
KMI0
P(3)
P(4)
P(1)
7G
6G
5G
4G
3G
2G
1G
TIMER/CTR (KMO0)
TIMER/CTR (KMI2)
FILAMENT
IR
GND (12V)
RED
WHT
BLK
PINK
ORG
BLU
BRN
YEL
GRY
VIO

YC-25 BOARD



RY - 1 BOARD

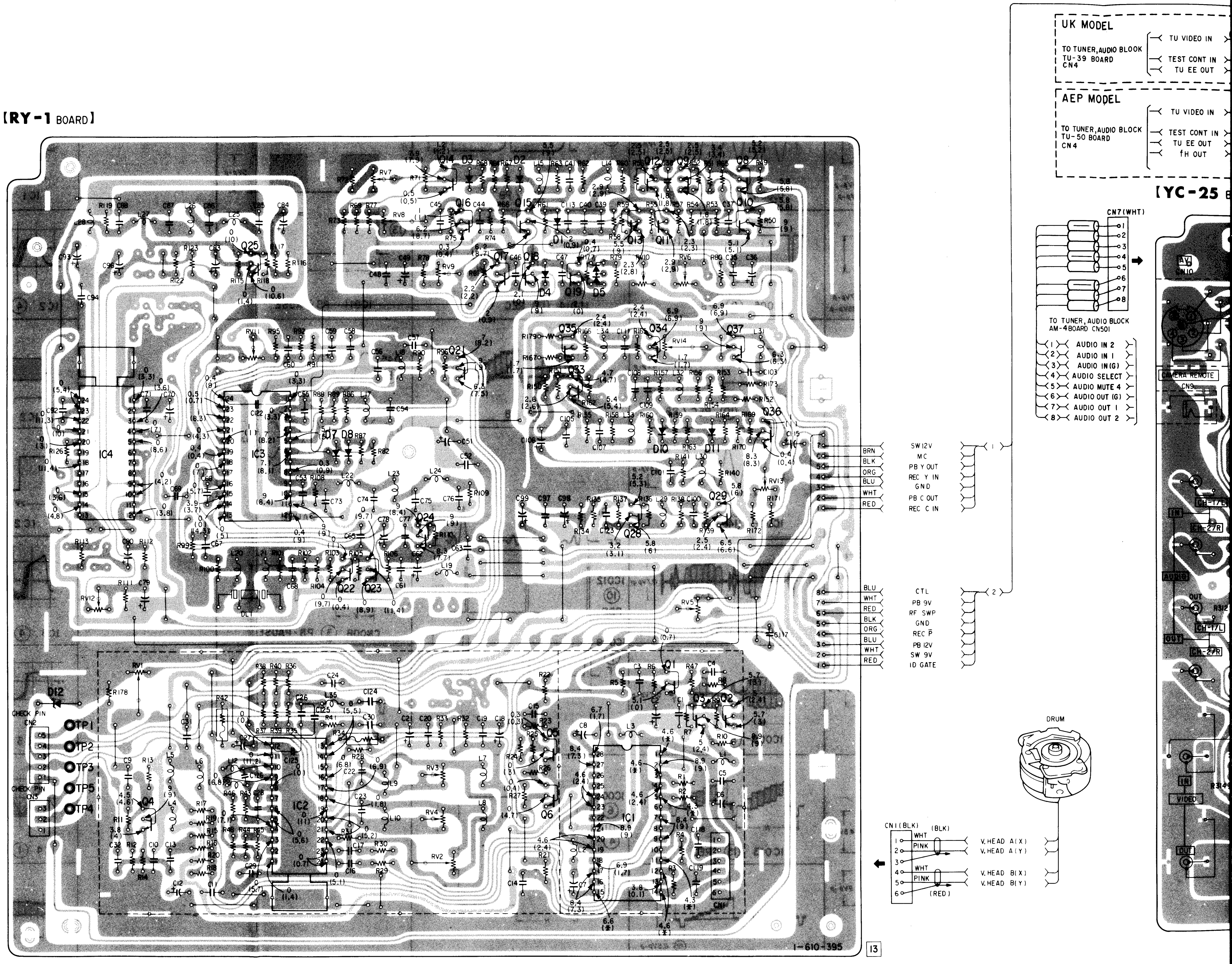


YC-25 (Y & CHROMA SIGNALS RECORD/PLAYBACK PROCESS) RY-1 (LOW CONVERTED CHROMA & Y-FM SIGNALS, RECORD/PLAYBACK AMP)

– Ref. No. YC-25 BOARD: 1000 series, RY-1 BOARD: 2000 series –

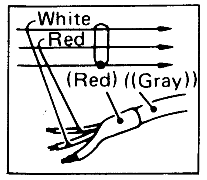
IC·Q	D	RV·TP
14 12 9 8	3,2	RV7
16 15 13,11 10		
	1	RV8
25 17,18 19	4,5	
		RV10,RV6 RV9
35 34 37 33 21		RV14 RV11
36	10 11 7,8	
IC4 IC3		
		RV13
28 29		
24		
22 23		
		RV12 RV5
1		RV1
3,2	12	
5		1 2 3
		RV3
6		5
4 IC2 IC1		4
		RV4
		RV2

[RY-1 BOARD]



CHECK PIN CN2
CHECK PIN CN3
TP1
TP2
TP3
TP5
TP4
IC1
IC2
IC3
IC4
1-610-395
13
BRN
BLK
ORG
BLU
WHT
RED
SW12V
MC
PB Y OUT
REC Y IN
GND
PB C OUT
REC C IN
1
BLU
WHT
RED
BLK
ORG
BLU
WHT
RED
CTL
PB 9V
RF SWP
GND
REC P̄
PB 12V
SW 9V
ID GATE
2
UK MODEL
TO TUNER, AUDIO BLOOK TU-39 BOARD CN4
TU VIDEO IN
TEST CONT IN
TU EE OUT
AEP MODEL
TO TUNER, AUDIO BLOCK TU-50 BOARD CN4
TU VIDEO IN
TEST CONT IN
TU EE OUT
fH OUT
[YC-25 B
CN7 (WHT)
TO TUNER, AUDIO BLOCK AM-4BOARD CN501
1 AUDIO IN 2
2 AUDIO IN 1
3 AUDIO IN (G)
4 AUDIO SELECT
5 AUDIO MUTE 4
6 AUDIO OUT (G)
7 AUDIO OUT 1
8 AUDIO OUT 2
AV CN10
CAMERA REMOTE CN9
DRUM
CN1 (BLK)
(BLK)
WHT
PINK
WHT
PINK
(RED)
V.HEAD A(X)
V.HEAD A(Y)
V.HEAD B(X)
V.HEAD B(Y)

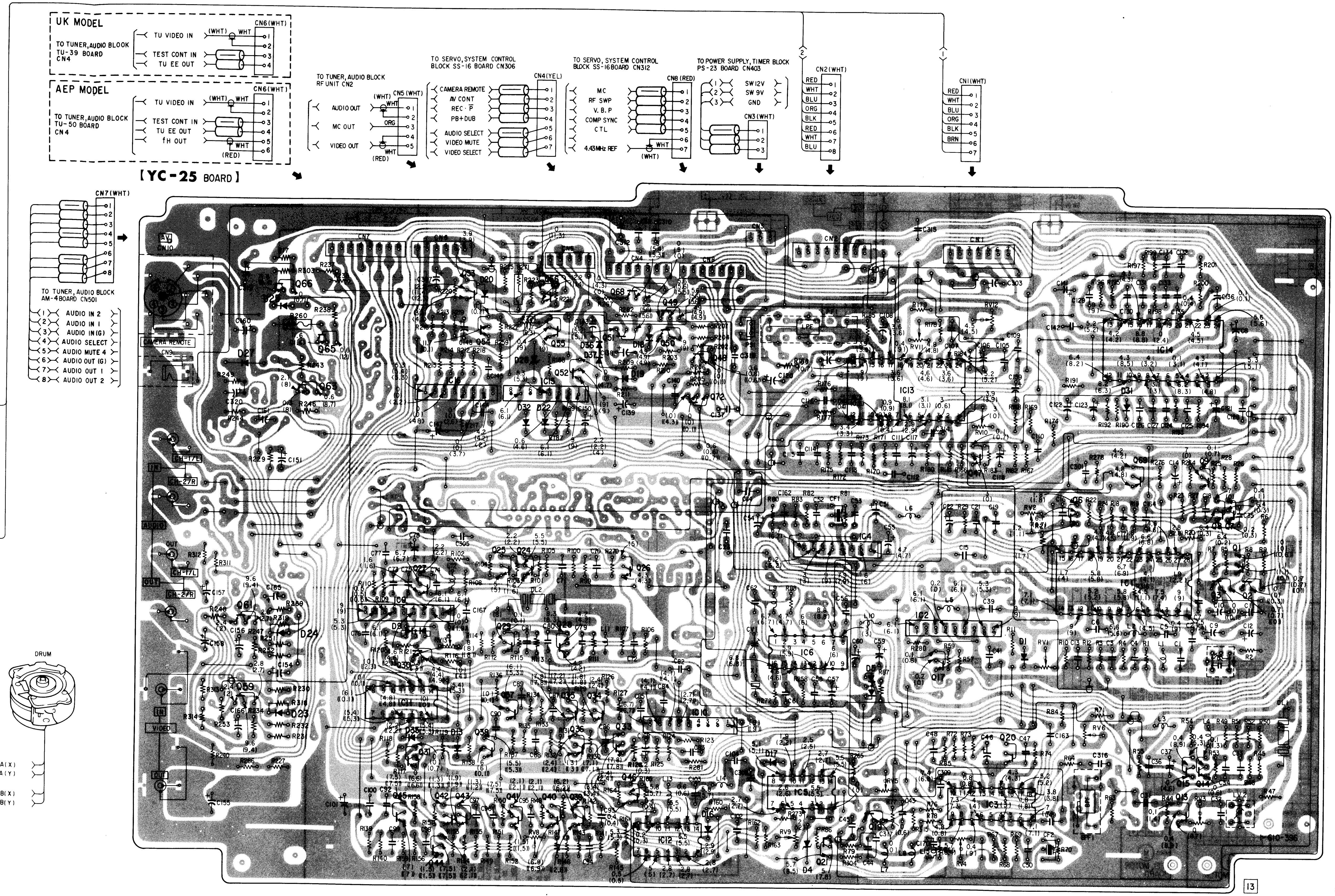
- Color code of sleeving over the end of the jacket.



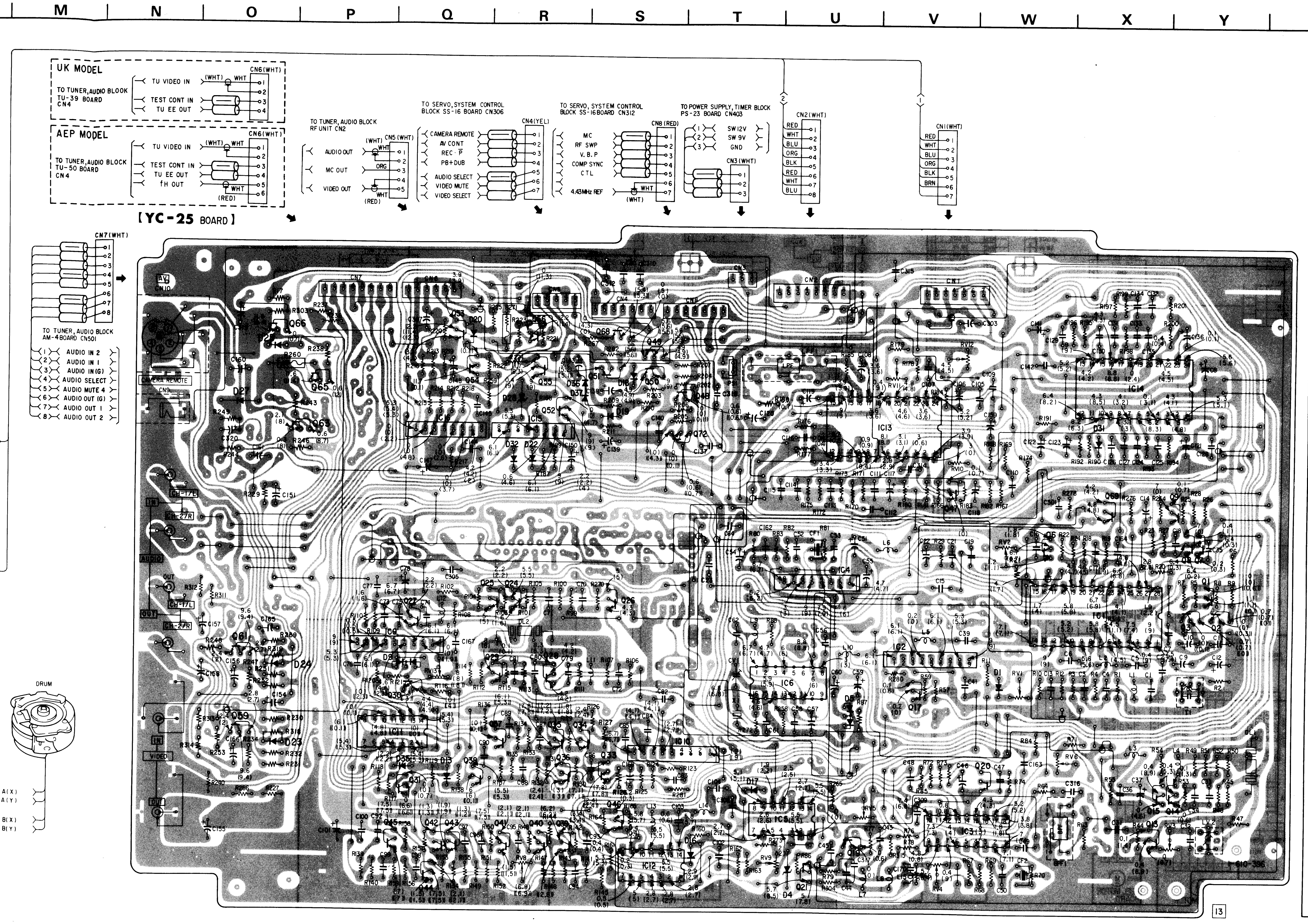
White
Red
(Red) ((Gray))

- ○— indicates a lead wire mounted on the component side.
- ●— indicates a lead wire mounted on the printed side.
- ▨ Soldering side
- ▨ B + pattern

M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A1 | B1


UK MODEL
TO TUNER, AUDIO BLOCK TU-39 BOARD CN4
TU VIDEO IN
TEST CONT IN
TU EE OUT
CN6 (WHT)
AEP MODEL
TO TUNER, AUDIO BLOCK TU-50 BOARD CN4
TU VIDEO IN
TEST CONT IN
TU EE OUT
fH OUT
(WHT)
WHT
(RED)
[YC-25 BOARD]
TO TUNER, AUDIO BLOCK RF UNIT CN2
AUDIO OUT
MC OUT
VIDEO OUT
CN5 (WHT)
ORG
TO SERVO, SYSTEM CONTROL BLOCK SS-16 BOARD CN306
CAMERA REMOTE
AV CONT
REC · P
PB+DUB
AUDIO SELECT
VIDEO MUTE
VIDEO SELECT
CN4 (YEL)
TO SERVO, SYSTEM CONTROL BLOCK SS-16 BOARD CN312
MC
RF SWP
V. B. P
COMP SYNC
CTL
4.43MHz REF
CN8 (RED)
TO POWER SUPPLY, TIMER BLOCK PS-23 BOARD CN403
SW 12V
SW 9V
GND
CN3 (WHT)
CN2 (WHT)
RED
WHT
BLU
ORG
BLK
CN1 (WHT)
BRN
CN7 (WHT)
TO TUNER, AUDIO BLOCK AM-4 BOARD CN501
AUDIO IN 2
AUDIO IN 1
AUDIO IN (G)
AUDIO SELECT
AUDIO MUTE 4
AUDIO OUT (G)
AUDIO OUT 1
AUDIO OUT 2
CAMERA REMOTE
CN9
CN10
AV
IN
OUT
AUDIO
CH-1/L
CH-2/R
VIDEO
DRUM
A(X)
A(Y)
B(X)
B(Y)
IC1
IC2
IC3
IC4
IC5
IC6
IC9
IC10
IC11
IC12
IC13
IC14
13

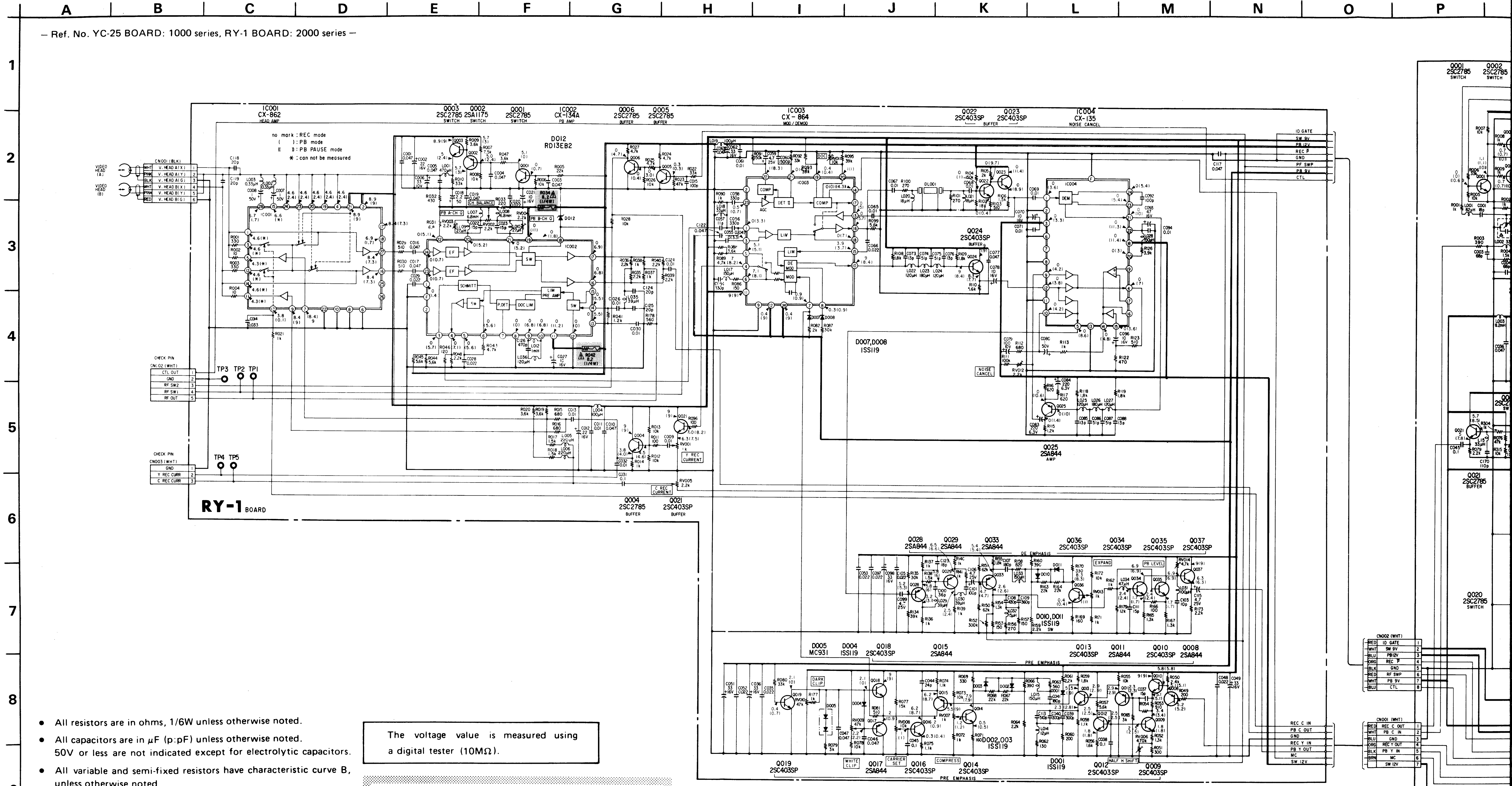
IC·Q	D	RV
66 53 56 68	20 25	RV12 RV11
49 IC14	18	
65 54 55 51 52 50 63 IC16 IC15 48 IC13 72	27 28 36 37 19	
	32 22 31	RV10
47 69 9		
6 8 7		RV2
1 25 24 26 IC4 27 IC1 3,2		
61 IC9 IC6 IC2	24 9	CV1 RV13 RV1
29 28 30 17	1	
59 IC11 37 35 34 IC10 38 31 36 33 20 15 14	5 23 35 13	RV6
46 IC5 IC3 13 45 42 43 41 40 39 19 44 21 IC12	17 16 4	RV5 RV3 LV2 RV9 RV8 RV4


M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
A1
B1
UK MODEL
TO TUNER, AUDIO BLOCK TU-39 BOARD CN4
TU VIDEO IN
TEST CONT IN
TU EE OUT
CN6(WHT)
AEP MODEL
TO TUNER, AUDIO BLOCK TU-50 BOARD CN4
TU VIDEO IN
TEST CONT IN
TU EE OUT
fH OUT
CN6(WHT)
[YC-25 BOARD]
TO TUNER, AUDIO BLOCK RF UNIT CN2
AUDIO OUT
MC OUT
VIDEO OUT
CN5 (WHT)
TO SERVO, SYSTEM CONTROL BLOCK SS-16 BOARD CN306
CAMERA REMOTE
AV CONT
REC · P̄
PB+DUB
AUDIO SELECT
VIDEO MUTE
VIDEO SELECT
CN4(YEL)
TO SERVO, SYSTEM CONTROL BLOCK SS-16BOARD CN312
MC
RF SWP
V. B. P
COMP SYNC
CTL
4.43MHz REF
CN8 (RED)
TO POWER SUPPLY, TIMER BLOCK PS-23 BOARD CN403
SW12V
SW 9V
GND
CN3 (WHT)
CN2(WHT)
CN1(WHT)
CN7(WHT)
TO TUNER, AUDIO BLOCK AM-4BOARD CN501
AUDIO IN 2
AUDIO IN 1
AUDIO IN(G)
AUDIO SELECT
AUDIO MUTE 4
AUDIO OUT (G)
AUDIO OUT 1
AUDIO OUT 2
DRUM
A(X)
A(Y)
B(X)
B(Y)
CAMERA REMOTE
VIDEO
13

IC·Q	D	RV
66 53 56 68	20 25	RV12 RV11
49 IC14	18	
65 54 55 51 52 50 48 IC13 63 IC16 IC15 72	27 28 36 37 19 32 22 31	RV10
47 69 9 6 8 7		RV2
1 25 24 26 IC4 27 IC1 3,2		
61 IC9 IC6 IC2	24 9	CV1 RV13 RV1
29 28 30 17	1	
59 IC11 37 35 34 IC10 38 31 36 33 20 15 14	5 23 35 13	RV6
46 IC5 IC3 13 45 42 43 41 40 39 19 44 21 IC12	17 16 4	RV5 RV3 LV2 RV9 RV8 RV4

YC-25 (Y & CHROMA SIGNALS RECORD/PLAYBACK PROCESS) RY-1 (LOW CONVERTED CHROMA & Y-FM SIGNALS, RECORD/PLAYBACK AMP)

– Ref. No. YC-25 BOARD: 1000 series, RY-1 BOARD: 2000 series –

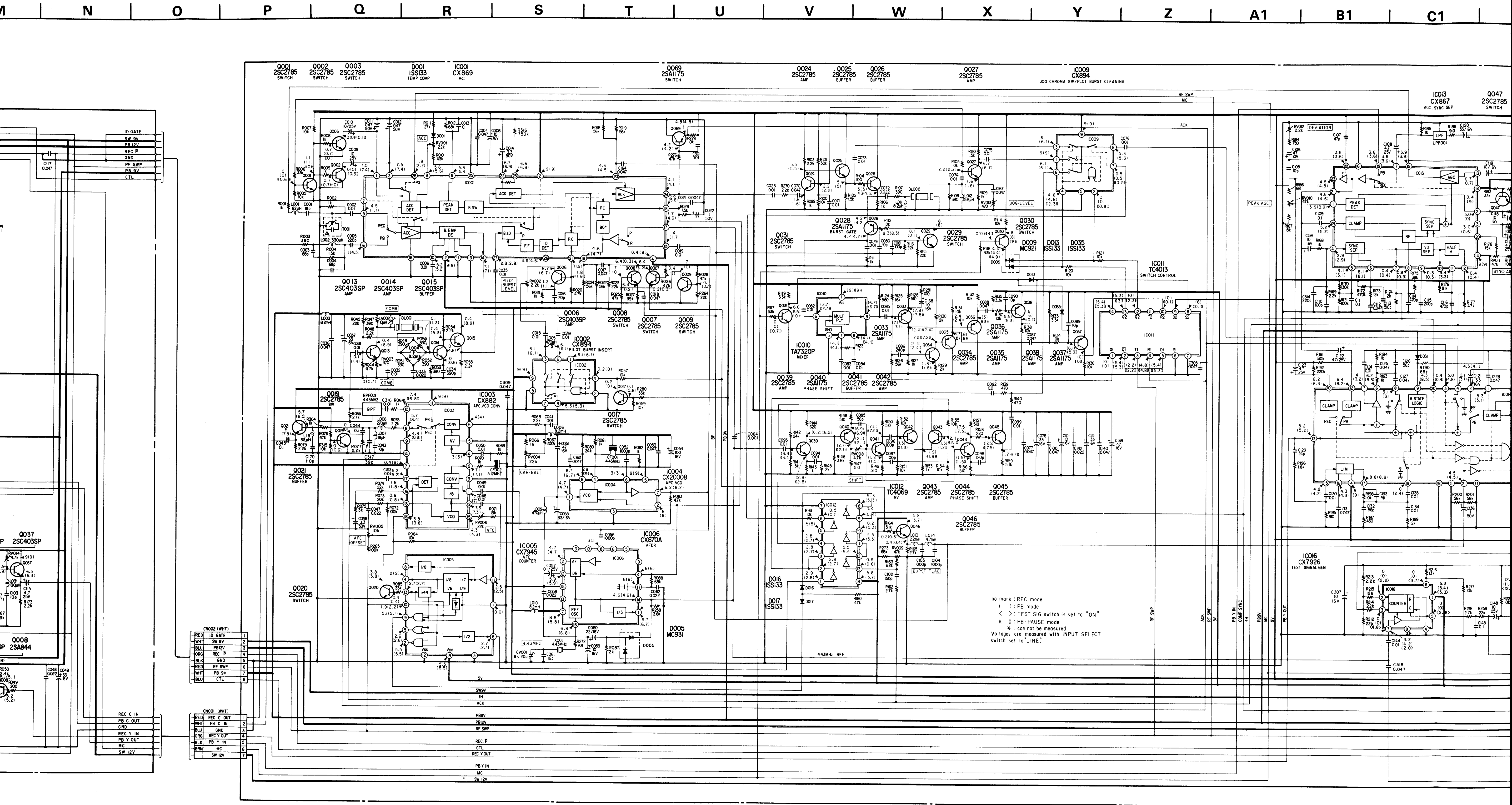

A B C D E F G H I J K L M N O P
1 2 3 4 5 6 7 8 9 10
IC001 CX-862 HEAD AMP
Q003 Q002 2SC2785 2SA1175 SWITCH SWITCH
Q001 2SC2785 SWITCH
IC002 CX-134A PB AMP
D012 RD13EB2
Q006 Q005 2SC2785 2SC2785 BUFFER BUFFER
IC003 CX-864 MOD / DEMOD
Q022 Q023 2SC403SP 2SC403SP BUFFER
IC004 CX-135 NOISE CANCEL
Q001 2SC2785 SWITCH
Q002 2SC2785 SWITCH
no mark : REC mode
( ) : PB mode
《 》 : PB PAUSE mode
* : can not be measured
VIDEO HEAD (A)
VIDEO HEAD (B)
CN001 (BLK)
V. HEAD A(X)
V. HEAD A(Y)
V. HEAD A(G)
V. HEAD B(X)
V. HEAD B(Y)
V. HEAD B(G)
CHECK PIN CN002 (WHT)
CTL OUT
GND
RF SW2
RF SWI
RF OUT
TP3 TP2 TP1
CHECK PIN CN003 (WHT)
GND
Y REC CURR
C REC CURR
TP4 TP5
RY-1 BOARD
CH BALANCE
PB A-CH Q
PB B-CH Q
EF
SW
SCHMITT
LIM
PRE AMP
P.DET
DOC LIM
AGC
COMP
DET
LIM
DE MOD
MOD
DEM
Q024 2SC403SP BUFFER
D007,D008 1SS119
NOISE CANCEL
Q025 2SA844 AMP
Y REC CURRENT
C REC CURRENT
Q004 2SC2785 BUFFER
Q021 2SC403SP BUFFER
Q028 2SA844
Q029 2SA844
Q033 2SA844
DE EMPHASIS
Q036 2SC403SP
Q034 2SA844
Q035 2SC403SP
Q037 2SC403SP
EXPAND
PB LEVEL
D010,D011 1SS119 SW
D005 MC931
D004 1SS119
Q018 2SC403SP
Q015 2SA844
Q013 2SC403SP
Q011 2SA844
Q010 2SC403SP
Q008 2SA844
PRE EMPHASIS
DARK CLIP
WHITE CLIP
CARRIER SET
COMPRESS
HALF H SHIFT
D002,003 1SS119
D001 1SS119
Q019 2SC403SP
Q017 2SA844
Q016 2SC403SP
Q014 2SC403SP
Q012 2SC403SP
Q009 2SC403SP
ID GATE
SW 9V
PB 12V
REC P
GND
RF SWP
PB 9V
CTL
CN002 (WHT)
REC C IN
PB C OUT
GND
REC Y IN
PB Y OUT
MC
SW 12V
CN001 (WHT)
REC C OUT
PB C IN
REC Y OUT
PB Y IN
Q021 2SC2785 BUFFER
Q020 2SC2785 SWITCH

- All resistors are in ohms, 1/6W unless otherwise noted.
- All capacitors are in μF (p:pF) unless otherwise noted. 50V or less are not indicated except for electrolytic capacitors.
- All variable and semi-fixed resistors have characteristic curve B, unless otherwise noted.
- ▨ : Nonflammable resistor
- ⏛ : Fusible resistor
- △ : Internal component.
- — : B + bus.
- The voltage value is a reference value between the grounding when the color bar signal is received from a color bar generator.

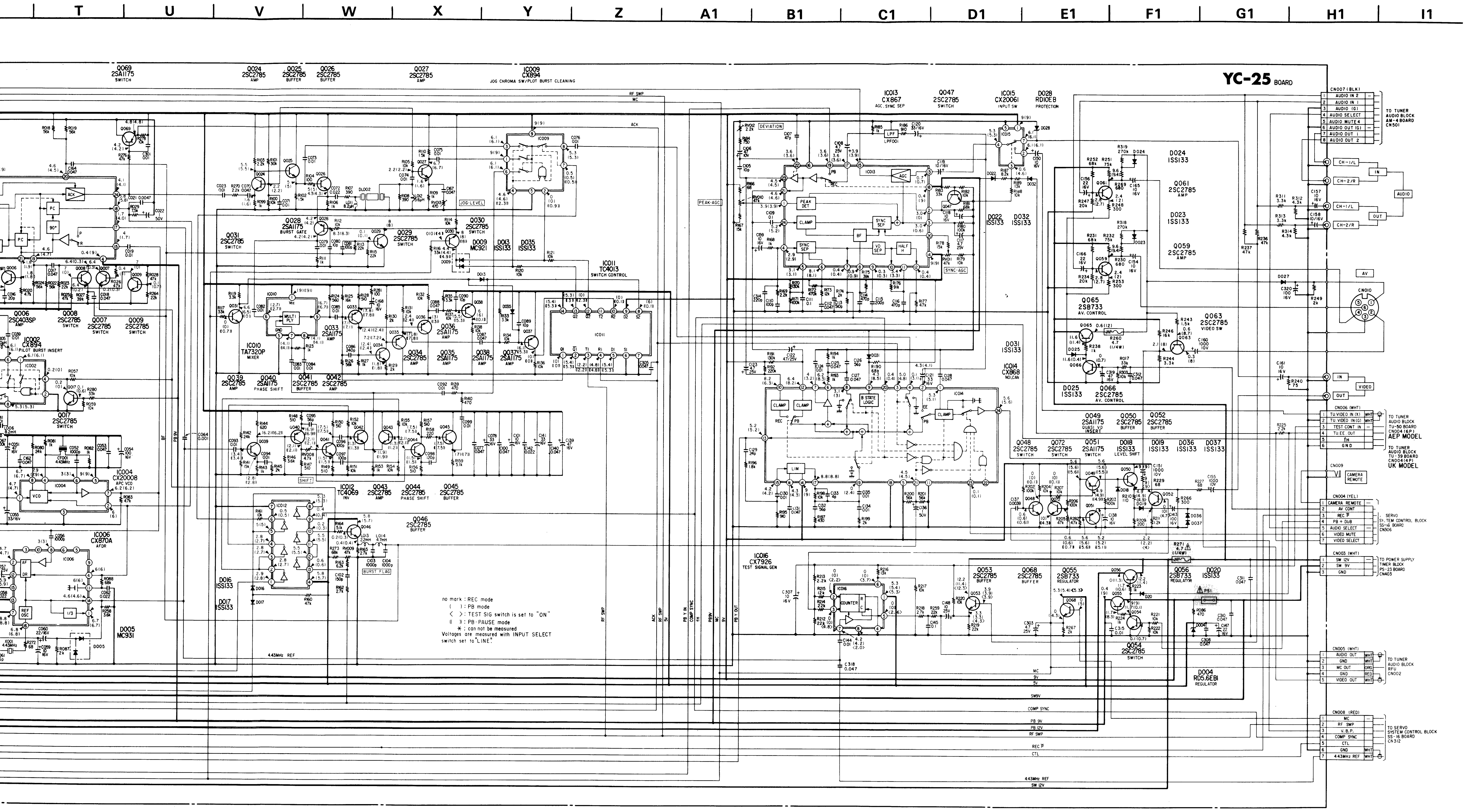
The voltage value is measured using a digital tester (10MΩ).

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

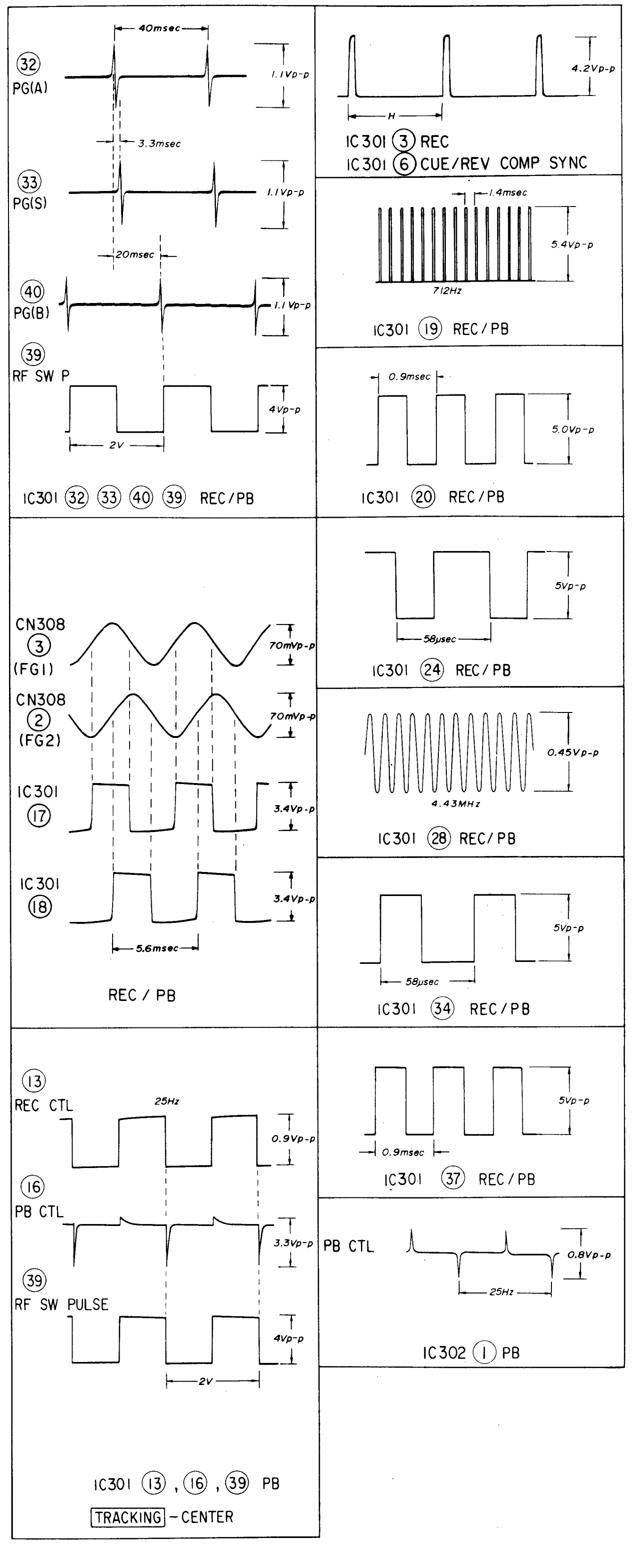

M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
A1
B1
C1
Q001 2SC2785 SWITCH
Q002 2SC2785 SWITCH
Q003 2SC2785 SWITCH
D001 1SS133 TEMP COMP
IC001 CX869 ACC
Q069 2SA1175 SWITCH
Q024 2SC2785 AMP
Q025 2SC2785 BUFFER
Q026 2SC2785 BUFFER
Q027 2SC2785 AMP
IC009 CX894 JOG CHROMA SW/PILOT BURST CLEANING
IC013 CX867 AGC, SYNC SEP
Q047 2SC2785 SWITCH
ACC DET
PEAK DET
B.SW
ACK DET
ACC
B.EMP DE
B.ID
FF
ID DET
PC
90°
Q013 2SC403SP AMP
Q014 2SC403SP AMP
Q015 2SC403SP BUFFER
Q006 2SC403SP AMP
Q008 2SC2785 SWITCH
Q007 2SC2785 SWITCH
Q009 2SC2785 SWITCH
PILOT BURST LEVEL
COMB
IC002 CX894 PILOT BURST INSERT
Q017 2SC2785 SWITCH
Q019 2SC2785 SW
IC003 CX882 AFC,VCO CONV
BPF
CONV
INV
DET
1/8
VCO
Q021 2SC2785 BUFFER
CAR.BAL
IC004 CX20008 APC VCO
AFC OFFSET
AFC
IC005 CX7945 AFC COUNTER
IC006 CX870A AFDR
AF DR
REF OSC
1/3
D005 MC931
4.43MHz
Q020 2SC2785 SWITCH
1/44
1/6
1/7
1/9
1/2
Q037 2SC403SP
Q008 2SA844
CN002 (WHT)
RED ID GATE 1
WHT SW 9V 2
BLU PB12V 3
ORG REC P 4
BLK GND 5
RED RF SWP 6
WHT PB 9V 7
WHT CTL 8
CN001 (WHT)
RED REC C OUT 1
WHT PB C IN 2
BLU GND 3
ORG REC Y OUT 4
BLK PB Y IN 5
BRN MC 6
SW 12V 7
ID GATE
SW 9V
PB 12V
REC P
GND
RF SWP
PB 9V
CTL
REC C IN
PB C OUT
GND
REC Y IN
PB Y OUT
MC
SW 12V
5V
SW9V
FH
ACK
PB9V
PB12V
RF SWP
REC P
CTL
REC Y OUT
PB Y IN
MC
SW 12V
4.43MHz REF
Q031 2SC2785 SWITCH
Q028 2SA1175 BURST GATE
Q029 2SC2785 SWITCH
Q030 2SC2785 SWITCH
D009 MC921
D013 1SS133
D035 1SS133
IC011 TC4013 SWITCH CONTROL
JOG LEVEL
IC010 TA7320P MIXER
MULTI PLY
Q033 2SA1175
Q036 2SA1175 AMP
Q039 2SC2785 AMP
Q040 2SA1175 PHASE SHIFT
Q041 2SC2785 BUFFER
Q042 2SC2785 AMP
Q034 2SC2785 AMP
Q035 2SA1175 AMP
Q038 2SA1175
Q037 2SA1175 AMP
SHIFT
IC012 TC4069 INV
Q043 2SC2785 AMP
Q044 2SC2785 PHASE SHIFT
Q045 2SC2785 BUFFER
Q046 2SC2785 BUFFER
BURST FLAG
D016 1SS133
D017 1SS133
DEVIATION
LPF
LPF001
AGC
PEAK DET
CLAMP
SYNC SEP
SYNC SEP
BF
VD SEP
HALF H
PEAK AGC
SYNC AGC
CLAMP
CLAMP
B STATE LOGIC
CLAMP
LIM
IC016 CX7926 TEST SIGNAL GEN
COUNTER
RF SWP
ACK
RF SWP
MC
PB Y IN
COMP SYNC
FH
PB9V
SW9V
PB Y OUT

no mark : REC mode
( ) : PB mode
< > : TEST SIG switch is set to "ON"
(( )) : PB·PAUSE mode
＊ : can not be measured
Voltages are measured with INPUT SELECT switch set to "LINE".

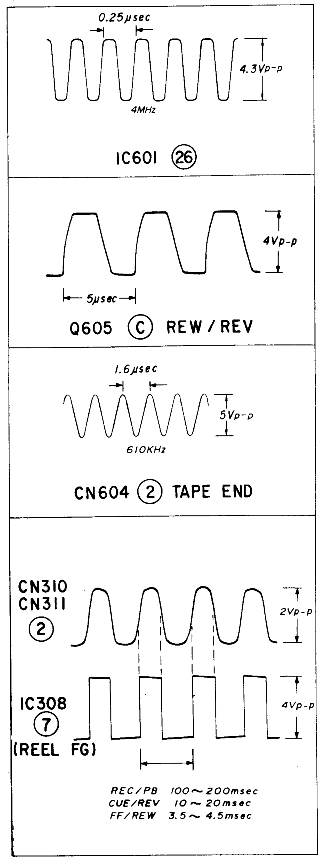

T
U
V
W
X
Y
Z
A1
B1
C1
D1
E1
F1
G1
H1
I1
YC-25 BOARD
Q069 2SA1175 SWITCH
Q024 2SC2785 AMP
Q025 2SC2785 BUFFER
Q026 2SC2785 BUFFER
Q027 2SC2785 AMP
IC009 CX894 JOG CHROMA SW/PILOT BURST CLEANING
IC013 CX867 AGC, SYNC SEP
Q047 2SC2785 SWITCH
IC015 CX20061 INPUT SW
D028 RD10EB PROTECTION
Q028 2SA1175 BURST GATE
Q029 2SC2785 SWITCH
Q030 2SC2785 SWITCH
D009 MC921
D013 1SS133
D035 1SS133
Q031 2SC2785 SWITCH
IC011 TC4013 SWITCH CONTROL
IC010 TA7320P MIXER
Q033 2SA1175
Q036 2SA1175 AMP
Q034 2SC2785 AMP
Q035 2SA1175 AMP
Q038 2SA1175 AMP
Q037 2SA1175 AMP
Q039 2SC2785 AMP
Q040 2SA1175 PHASE SHIFT
Q041 2SC2785 BUFFER
Q042 2SC2785 AMP
IC012 TC4069 INV
Q043 2SC2785 AMP
Q044 2SC2785 PHASE SHIFT
Q045 2SC2785 BUFFER
Q046 2SC2785 BUFFER
D016 1SS133
D017 1SS133
BURST FLAG
SHIFT
JOG-LEVEL
PEAK-AGC
DEVIATION
SYNC-AGC
Q006 2SC403SP AMP
Q008 2SC2785 SWITCH
Q007 2SC2785 SWITCH
Q009 2SC2785 SWITCH
IC002 CX894 PILOT BURST INSERT
Q017 2SC2785 SWITCH
IC004 CX20008 APC VCO
IC006 CX870A AFDR
D005 MC931
4.43MHz REF
D022 1SS133
D032 1SS133
D031 1SS133
IC014 CX868 NOLCAN
IC016 CX7926 TEST SIGNAL GEN
D024 1SS133
Q061 2SC2785 AMP
D023 1SS133
Q059 2SC2785 AMP
Q065 2SB733 AV. CONTROL
Q063 2SC2785 VIDEO SW
D025 1SS133
Q066 2SC2785 AV. CONTROL
Q049 2SA1175 QUASI VD INSERT
Q050 2SC2785 BUFFER
Q052 2SC2785 BUFFER
Q048 2SC2785 SWITCH
Q072 2SC2785 SWITCH
Q051 2SA1175 SWITCH
D018 1SS133 LEVEL SHIFT
D019 1SS133
D036 1SS133
D037 1SS133
Q053 2SC2785 BUFFER
Q068 2SC2785 BUFFER
Q055 2SB733 REGULATOR
Q056 2SB733 REGULATOR
D020 1SS133
Q054 2SC2785 SWITCH
D004 RD5.6EB1 REGULATOR
PEAK DET
CLAMP
SYNC SEP
AGC
BF
VD SEP
HALF H
LPF
LPF001
B STATE LOGIC
LIM
COUNTER
MULTI PLY
CN007 (BLK)
1 AUDIO IN 2
2 AUDIO IN 1
3 AUDIO (G)
4 AUDIO SELECT
5 AUDIO MUTE 4
6 AUDIO OUT (G)
7 AUDIO OUT 1
8 AUDIO OUT 2
TO TUNER AUDIO BLOCK AM-4 BOARD CN501
CH-1/L
CH-2/R
IN
OUT
AUDIO
AV
CN010
VIDEO
CN006 (WHT)
1 TU.VIDEO IN (X) WHT
2 TU. VIDEO IN (G) WHT
3 TEST CONT IN
4 TU.EE. OUT
5 fH
6 GND
TO TUNER AUDIO BLOCK TU-50 BOARD CN004 (6P)
AEP MODEL
TO TUNER AUDIO BLOCK TU-39 BOARD CN004 (4P)
UK MODEL
CN009
CAMERA REMOTE
CN004 (YEL)
1 CAMERA REMOTE
2 AV CONT
3 REC.P̄
4 PB + DUB
5 AUDIO SELECT
6 VIDEO MUTE
7 VIDEO SELECT
SERVO SYSTEM CONTROL BLOCK SS-16 BOARD CN306
CN003 (WHT)
1 SW 12V
2 SW 9V
3 GND
TO POWER SUPPLY TIMER BLOCK PS-23 BOARD CN403
CN005 (WHT)
1 AUDIO OUT WHT
2 GND WHT
3 MC OUT ORG
4 GND RED
5 VIDEO OUT WHT
TO TUNER AUDIO BLOCK RFU CN002
CN008 (RED)
1 MC
2 RF SWP
3 V. B. P.
4 COMP SYNC
5 CTL
6 GND WHT
7 4.43MHz REF WHT
TO SERVO SYSTEM CONTROL BLOCK SS-16 BOARD CN312
RF SWP
MC
9V
5V
SW9V
COMP SYNC
PB 9V
PB 12V
REC P̄
CTL
4.43MHz REF
SW 12V
ACK
PS1

no mark : REC mode
( ) : PB mode
< > : TEST SIG switch is set to "ON"
(( )) : PB·PAUSE mode
✱ : can not be measured
Voltages are measured with INPUT SELECT switch set to "LINE".

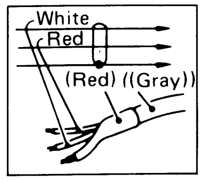
SS-16 (SERVO) BOARD



SS-16 (SYSTEM CONTROL) BOARD



- Color code of sleeving over the end of the jacket.


White
Red
(Red) ((Gray))

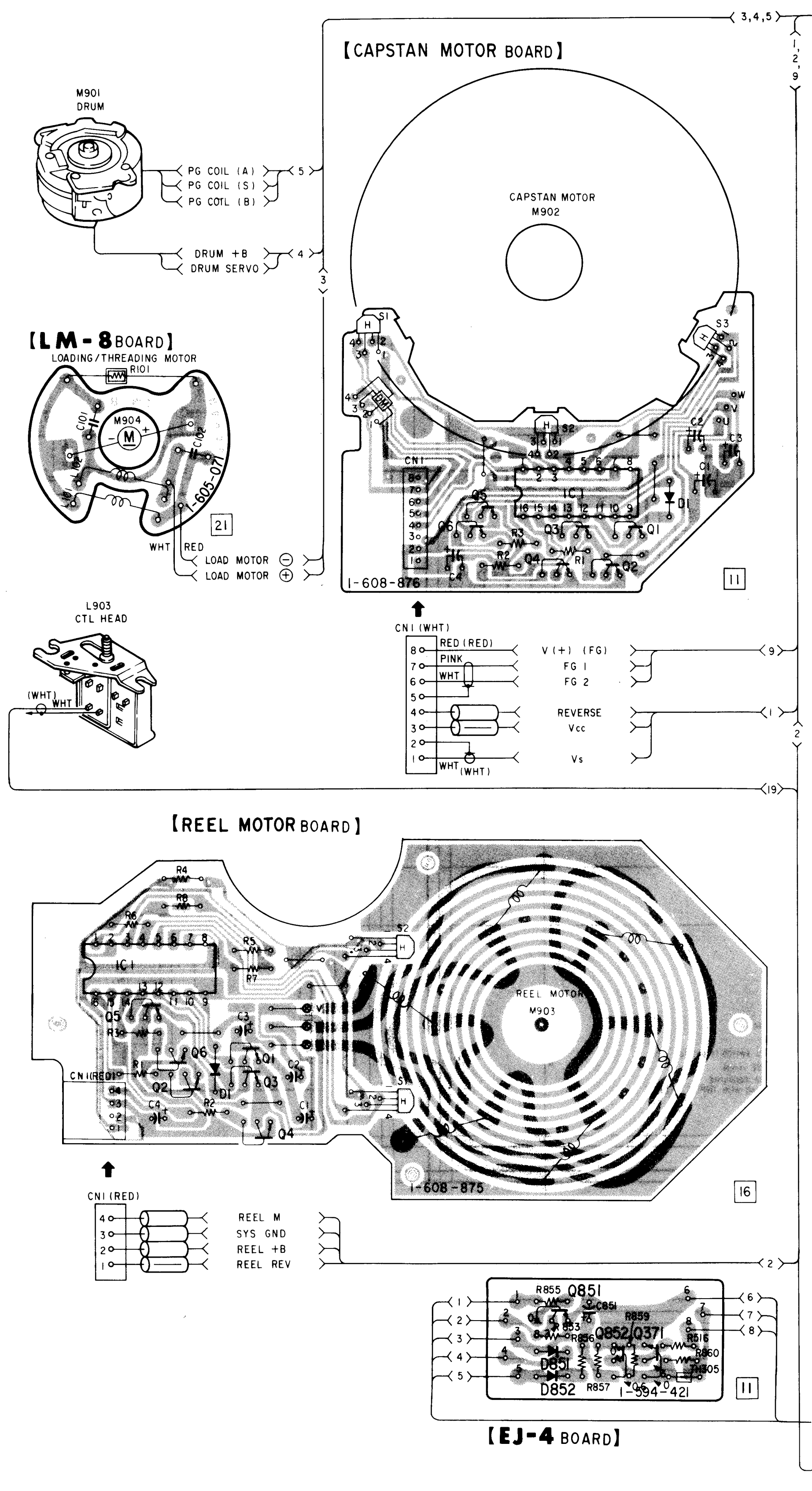
- ○— indicates a lead wire mounted on the component side.
- ●— indicates a lead wire mounted on the printed side.
- ▨ Soldering side
- Component side
- ▨ B + pattern

SS-16, EJ-4 (SERVO/SYSTEM CONTROL) **FU-14** (FUNCTION SWITCH) **SW-27** (TONE INPUT SELECT SWITCH TRACKING) **RD-6** (ROTATION DETECTOR) **RD-7** (ROTATIO

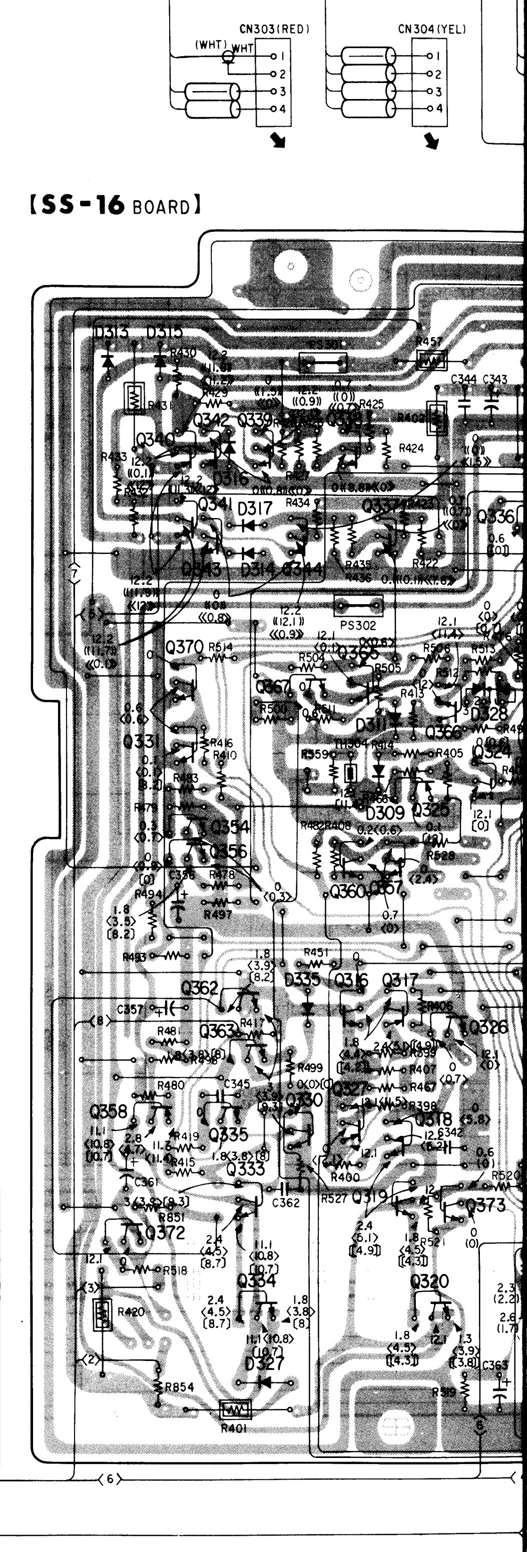
A B C D E F G H I J K

– Ref. No. SS-16, EJ-4 BOARD: 3000 series, FU-14 BOARD: 4700 series, SW-27 BOARD: 4600 series, RD-6, RD-7 BOARD: 9200 series, LM-8 BOARD: 9100 series, CAPSTANMOTOR BOARD: 5100 series, RE

1 2 3 4 5 6 7 8 9 10


M901
DRUM
PG COIL (A)
PG COIL (S)
PG COIL (B)
DRUM +B
DRUM SERVO
【CAPSTAN MOTOR BOARD】
CAPSTAN MOTOR
M902
1-608-876
11
CN1 (WHT)
RED (RED)
PINK
WHT
WHT (WHT)
V(+) (FG)
FG 1
FG 2
REVERSE
Vcc
Vs
【LM-8 BOARD】
LOADING/THREADING MOTOR
M904
1-605-071
21
WHT
RED
LOAD MOTOR ⊖
LOAD MOTOR ⊕
L903
CTL HEAD
(WHT)
WHT
【REEL MOTOR BOARD】
REEL MOTOR
M903
1-608-875
16
CN1 (RED)
REEL M
SYS GND
REEL +B
REEL REV
R855 Q851
R859
Q852 Q371
D851
D852 R857
1-594-421
11
【EJ-4 BOARD】

Q · IC	D	TP · RV
	313,315	
349,346		
339 302,303,352	316	
340,342,338 347,348		
314	613	
313		
616		
341,344,337 604,614	317 301	406
343 336		RV302
321 312	314 302	
311,IC308	612,610	
345 615		404
310 605,613		402
		403
355 309 332	326	RV309,RV304
359	617	RV301
370,367,365 301		
366 620 618	607	
368 IC301 608 606	328	
307 607,617		
609,612	311 616	
331		
324		405
	309 614	RV303
IC303		
325 611		401
354 IC304 610,619	330 608	410
356,360,357	329 308	
		RV310 604
		409
364	304	
		RV308,RV307
IC305 636	335	603,605,602
362,316,317		
326		407,601
363		
327 315		
IC307 IC306 IC601		
358,335,330,318		
322		
627		
333 319 373		
372		
	338 306	
IC302		
334,320,306,305		
626		
624,623,631,630,629,628	327 325	
304,622,621,625,633,634,632		

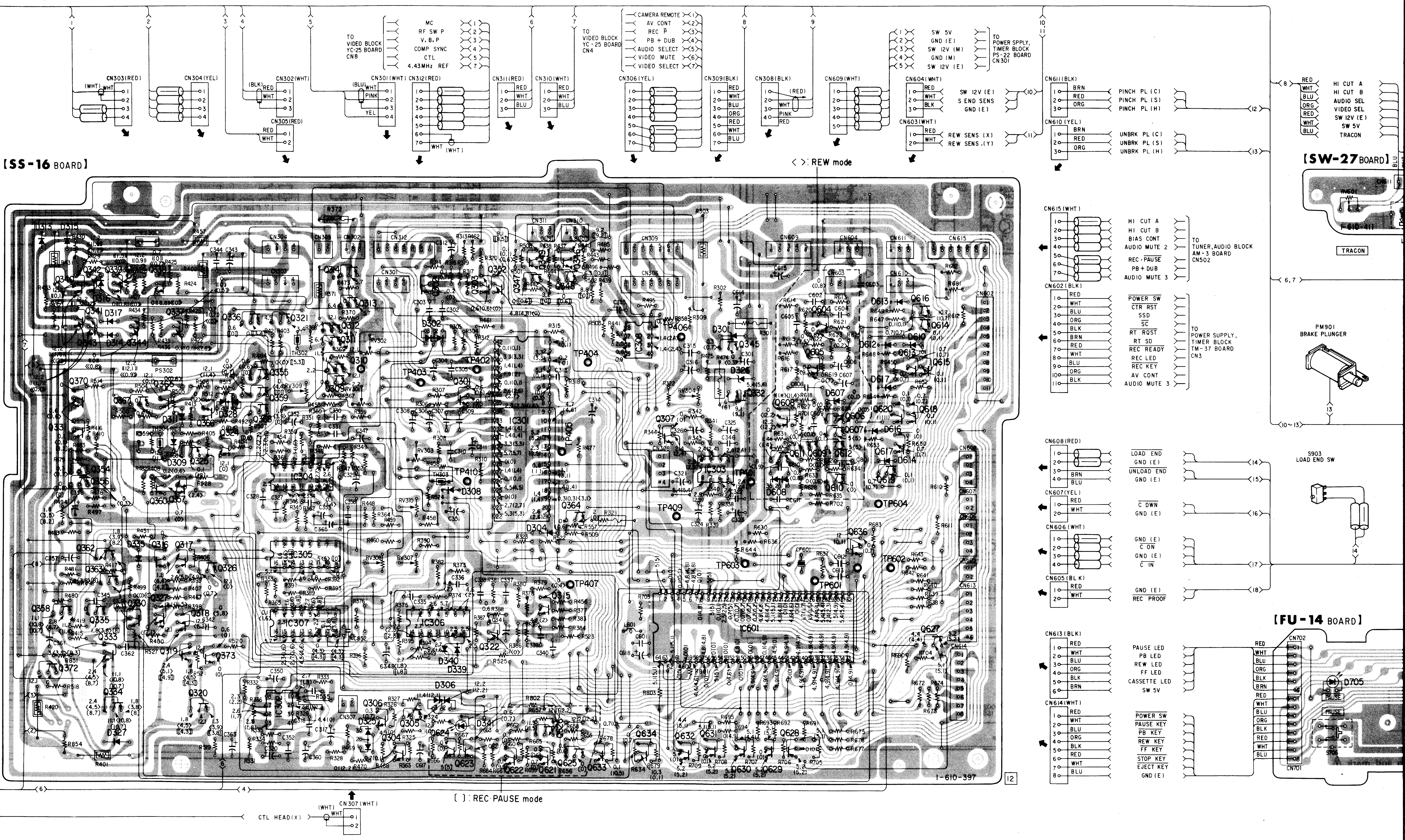

CN303 (RED)
(WHT) WHT
CN304 (YEL)
【SS-16 BOARD】
D313 D315
Q340
Q342
Q339
Q341
D317
D343
D314
Q337
Q336
PS302
Q370
Q331
Q354
Q356
Q360
D309
Q362
Q363
D335
Q316
Q317
Q358
Q335
Q333
Q372
Q334
D327
Q320
Q373
R420
R854
R401

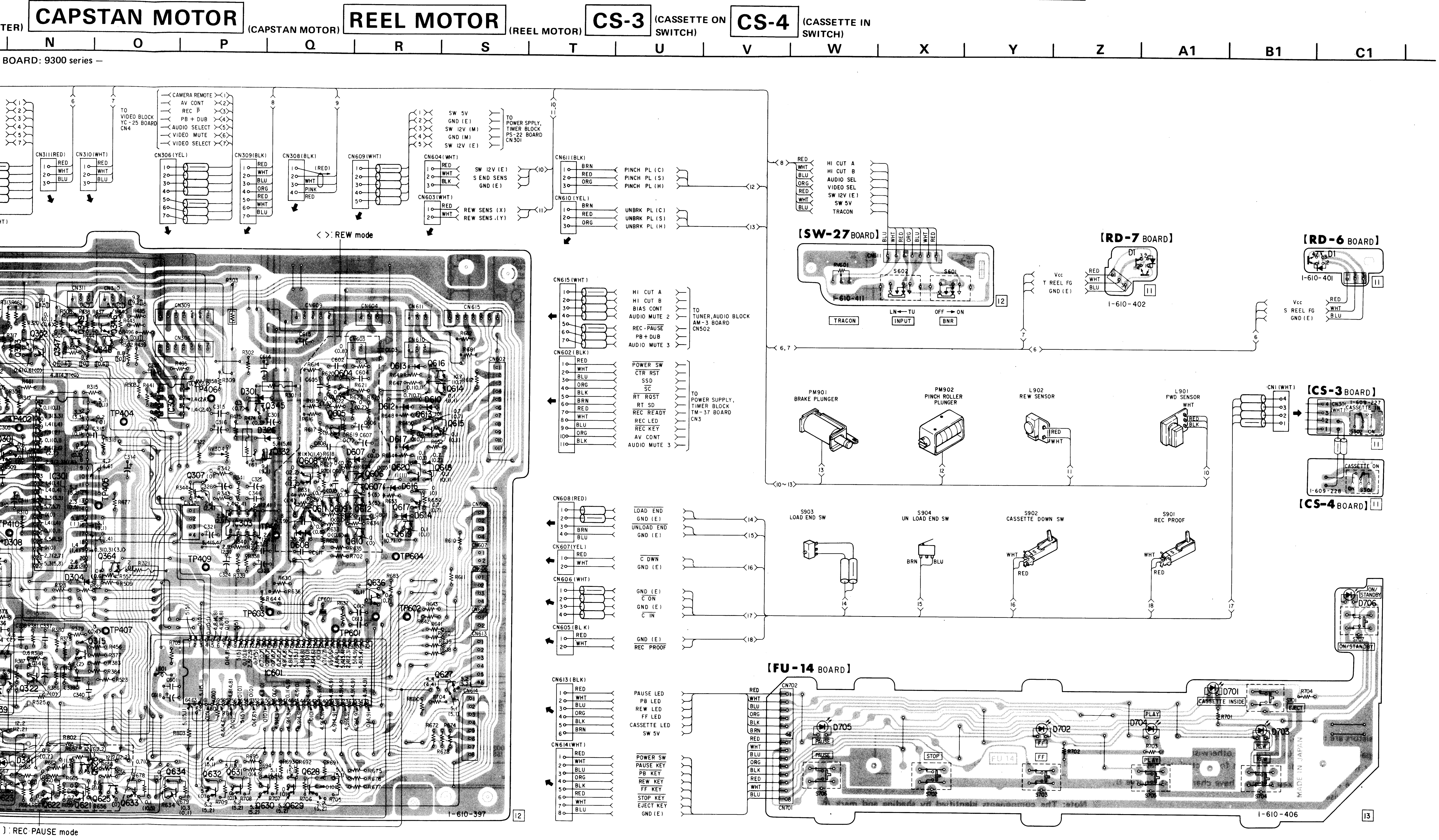
PUT SELECT TRACKING) **RD-6** (ROTATION DETECTOR) **RD-7** (ROTATION DETECTOR) **LM-8** (NOISE FILTER) **CAPSTAN MOTOR** (CAPSTAN MOTOR) **REEL MOTOR** (REEL MOTOR) **CS-3** (CASSETTE ON SWITCH) **CS-4** (CASSETTE IN SWITCH)

G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W

: 9200 series, LM-8 BOARD: 9100 series, CAPSTANMOTOR BOARD: 5100 series, REELMOTOR BOARD: 5000 series, CS-3, CS-4 BOARD: 9300 series —

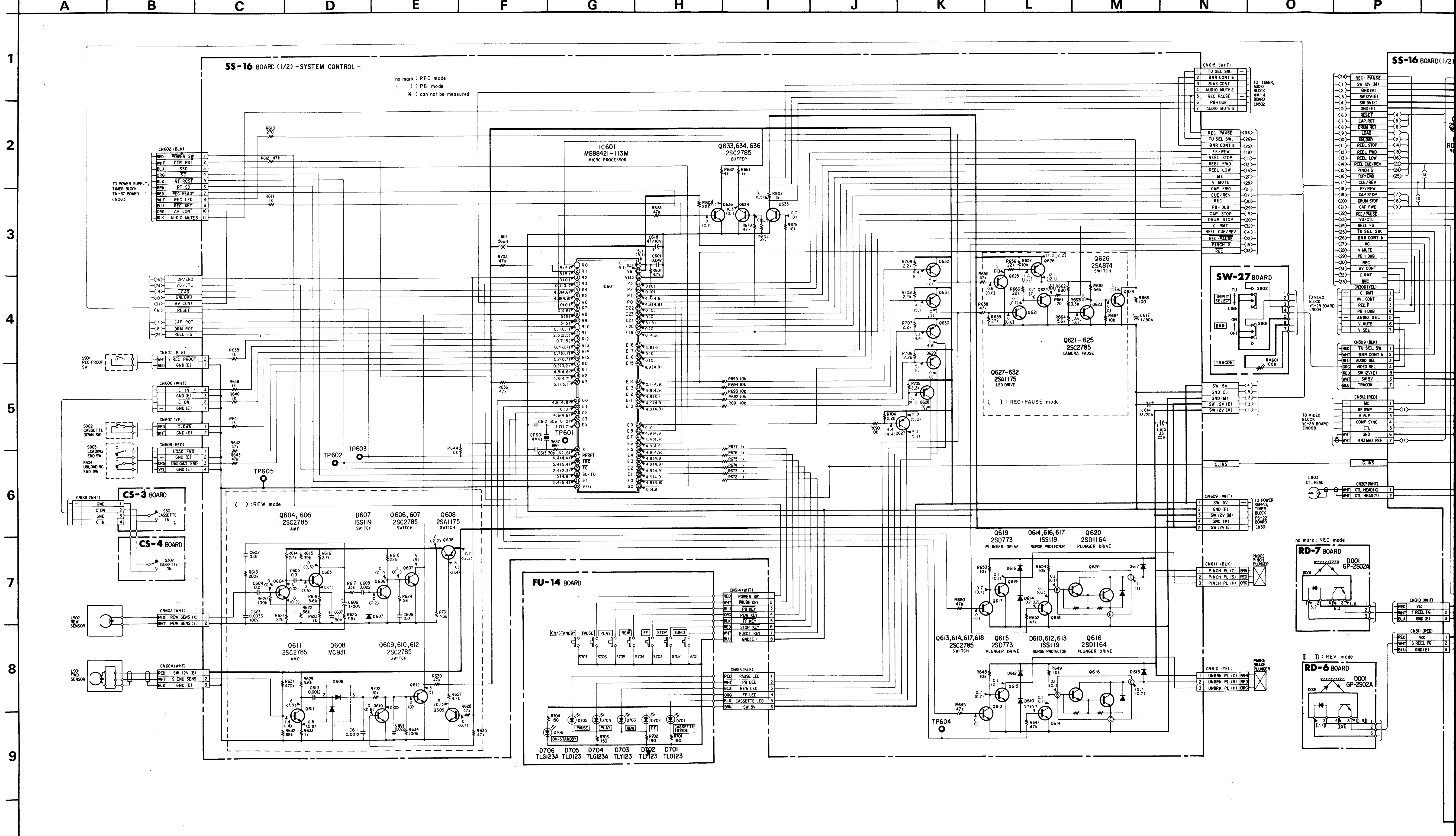
	D	TP · RV
	313,315	
349,346		
3,352 347,348	316	
	613	
616 604,614	317 301	406
308	314 302 612,610	RV302
345 615 605,613		404 402
332	326	403 RV309,RV304
	617 607	RV301
620 618 608 606	328	
7 607,617 609,612	311 616	
		405
03	309 614	RV303
611 610,619	330 608 329 308	410 401
		RV310 604 409
364	304	
636	335	RV308,RV307 603,605,602
		407,601
315 IC601		
22		
627		
	338 306	
6 ,630,629,628 633,634,632	327 325	


[SS-16 BOARD]
TO VIDEO BLOCK YC-25 BOARD CN8
MC
RF SW P
V. B. P
COMP SYNC
CTL
4.43MHz REF
TO VIDEO BLOCK YC-25 BOARD CN4
CAMERA REMOTE
AV CONT
REC P
PB + DUB
AUDIO SELECT
VIDEO MUTE
VIDEO SELECT
SW 5V
GND (E)
SW 12V (M)
GND (M)
SW 12V (E)
TO POWER SPPLY, TIMER BLOCK PS-22 BOARD CN301
CN303 (RED)
CN304 (YEL)
CN302 (WHT)
CN305 (RED)
CN301 (WHT)
CN312 (RED)
CN311 (RED)
CN310 (WHT)
CN306 (YEL)
CN309 (BLK)
CN308 (BLK)
CN609 (WHT)
CN604 (WHT)
CN603 (WHT)
CN611 (BLK)
CN610 (YEL)
SW 12V (E)
S END SENS
GND (E)
REW SENS (X)
REW SENS (Y)
PINCH PL (C)
PINCH PL (S)
PINCH PL (H)
UNBRK PL (C)
UNBRK PL (S)
UNBRK PL (H)
< >: REW mode
HI CUT A
HI CUT B
AUDIO SEL
VIDEO SEL
SW 12V (E)
SW 5V
TRACON
[SW-27 BOARD]
CN615 (WHT)
HI CUT A
HI CUT B
BIAS CONT
AUDIO MUTE 2
REC・PAUSE
PB + DUB
AUDIO MUTE 3
TO TUNER, AUDIO BLOCK AM-3 BOARD CN502
CN602 (BLK)
POWER SW
CTR RST
SSD
SC
RT RQST
RT SD
REC READY
REC LED
REC KEY
AV CONT
AUDIO MUTE 3
TO POWER SUPPLY, TIMER BLOCK TM-37 BOARD CN3
PM901 BRAKE PLUNGER
CN608 (RED)
LOAD END
GND (E)
UNLOAD END
GND (E)
S903 LOAD END SW
CN607 (YEL)
C DWN
GND (E)
CN606 (WHT)
GND (E)
C ON
GND (E)
C IN
CN605 (BLK)
GND (E)
REC PROOF
CN613 (BLK)
PAUSE LED
PB LED
REW LED
FF LED
CASSETTE LED
SW 5V
CN614 (WHT)
POWER SW
PAUSE KEY
PB KEY
REW KEY
FF KEY
STOP KEY
EJECT KEY
GND (E)
[FU-14 BOARD]
CN702
CN701
D705
PAUSE
IC301
IC303
IC304
IC305
IC306
IC307
IC308
IC601
TP403
TP404
TP407
TP409
TP410
TP601
TP602
TP603
TP604
1-610-397
[ ]: REC PAUSE mode
CN307 (WHT)
CTL HEAD (X)


TER)
CAPSTAN MOTOR
(CAPSTAN MOTOR)
REEL MOTOR
(REEL MOTOR)
CS-3
(CASSETTE ON SWITCH)
CS-4
(CASSETTE IN SWITCH)
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
A1
B1
C1
BOARD: 9300 series –
TO VIDEO BLOCK YC-25 BOARD CN4
CAMERA REMOTE
AV CONT
REC P
PB + DUB
AUDIO SELECT
VIDEO MUTE
VIDEO SELECT
SW 5V
GND (E)
SW 12V (M)
GND (M)
SW 12V (E)
TO POWER SPPLY, TIMER BLOCK PS-22 BOARD CN301
CN311 (RED)
CN310 (WHT)
CN306 (YEL)
CN309 (BLK)
CN308 (BLK)
CN609 (WHT)
CN604 (WHT)
SW 12V (E)
S END SENS
GND (E)
CN603 (WHT)
REW SENS (X)
REW SENS (Y)
CN611 (BLK)
PINCH PL (C)
PINCH PL (S)
PINCH PL (H)
CN610 (YEL)
UNBRK PL (C)
UNBRK PL (S)
UNBRK PL (H)
< >: REW mode
HI CUT A
HI CUT B
AUDIO SEL
VIDEO SEL
SW 12V (E)
SW 5V
TRACON
【SW-27 BOARD】
1-610-411
TRACON
LN ← TU
INPUT
OFF → ON
BNR
S602
S601
RV601
【RD-7 BOARD】
Vcc
T REEL FG
GND (E)
1-610-402
【RD-6 BOARD】
1-610-401
Vcc
S REEL FG
GND (E)
CN615 (WHT)
HI CUT A
HI CUT B
BIAS CONT
AUDIO MUTE 2
REC · PAUSE
PB + DUB
AUDIO MUTE 3
TO TUNER, AUDIO BLOCK AM-3 BOARD CN502
CN602 (BLK)
POWER SW
CTR RST
SSD
SC
RT RDST
RT SD
REC READY
REC LED
REC KEY
AV CONT
AUDIO MUTE 3
TO POWER SUPPLY, TIMER BLOCK TM-37 BOARD CN3
PM901 BRAKE PLUNGER
PM902 PINCH ROLLER PLUNGER
L902 REW SENSOR
L901 FWD SENSOR
CN1 (WHT)
【CS-3 BOARD】
1-609-227
CASSETTE IN
CASSETTE ON
1-609-228
【CS-4 BOARD】
CN608 (RED)
LOAD END
GND (E)
UNLOAD END
GND (E)
CN607 (YEL)
C DWN
GND (E)
CN606 (WHT)
GND (E)
C ON
GND (E)
C IN
CN605 (BLK)
GND (E)
REC PROOF
S903 LOAD END SW
S904 UN LOAD END SW
S902 CASSETTE DOWN SW
S901 REC PROOF
IC301
IC601
TP404
TP406
TP407
TP409
TP410
TP601
TP602
TP603
TP604
1-610-397
CN613 (BLK)
PAUSE LED
PB LED
REW LED
FF LED
CASSETTE LED
SW 5V
CN614 (WHT)
POWER SW
PAUSE KEY
PB KEY
REW KEY
FF KEY
STOP KEY
EJECT KEY
GND (E)
【FU-14 BOARD】
CN702
CN701
D701
CASSETTE INSIDE
D702
D703
D704
D705
D706
PAUSE
STOP
FF
PLAY
REW
EJECT
ON/STANDBY
S701
S702
S703
S704
S705
S706
S707
1-610-406
[ ]: REC · PAUSE mode
12
13

SERVO, SYSTEM CONTROL SERVO, SYSTEM CONTROL

SS-16, EJ-4 (SERVO/SYSTEM CONTROL) **FU-14** (FUNCTION SWITCH) **SW-27** (TONE INPUT SELECT SWITCH TRACKING) **RD-6** (ROTATION DETECTOR) **RD-7** (ROTATION DETECTOR) **LM-8** (NOISE FILTER) **CAPSTAN MOTOR** (CAPSTAN


A
B
C
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G
H
I
J
K
L
M
N
O
P
1
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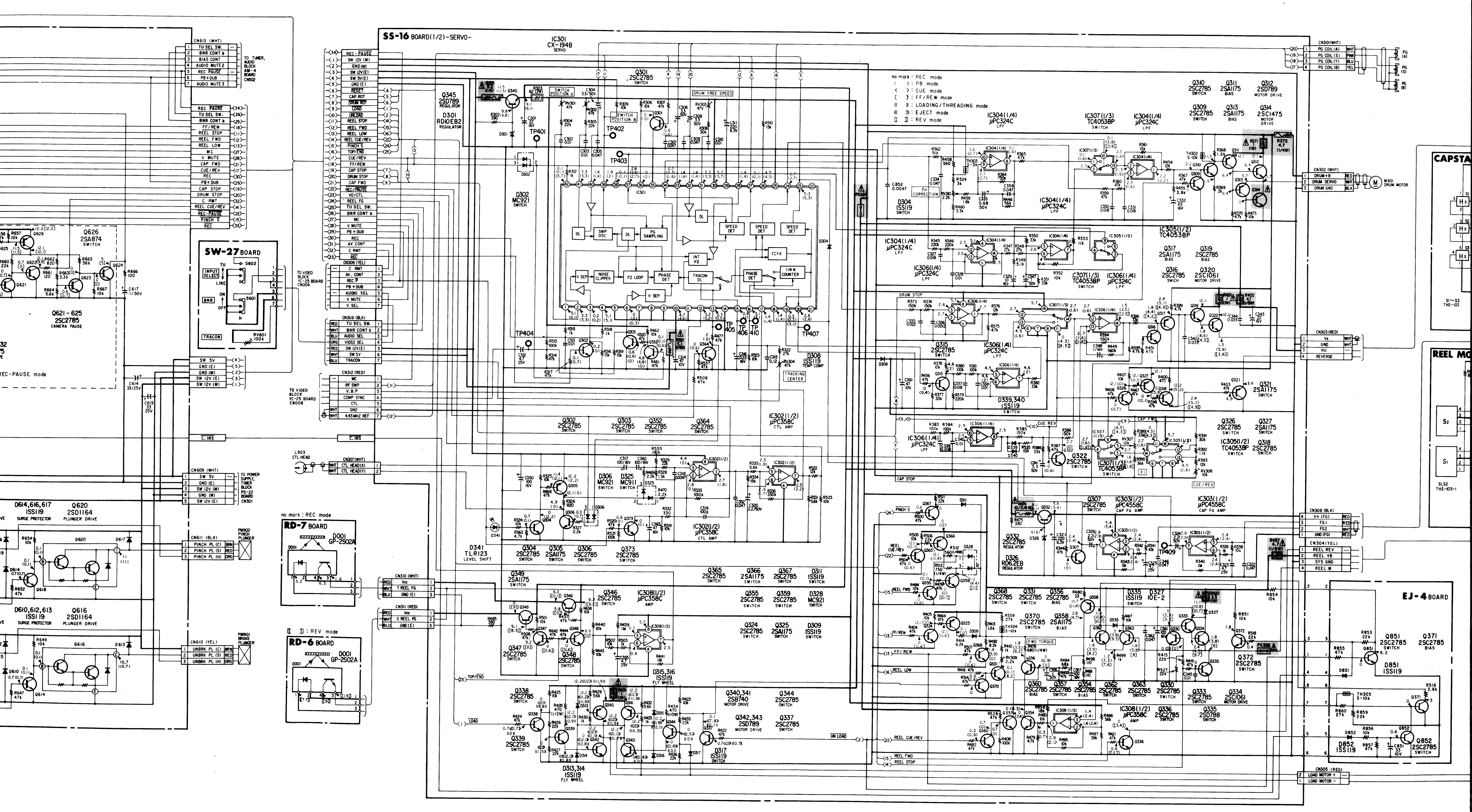
6
7
8
9
10
SS-16 BOARD (1/2) -SYSTEM CONTROL-
no mark : REC mode
( ) : PB mode
* : can not be measured
IC601
MB88421-113M
MICRO PROCESSOR
Q633,634,636
2SC2785
BUFFER
CN602 (BLK)
POWER SW
CTR RST
SSD
SC
RT RQST
RT SD
REC READY
REC LED
REC KEY
AV CONT
AUDIO MUTE 3
TO POWER SUPPLY, TIMER BLOCK TM-37 BOARD CN003
TOP/END
VD/CTL
LOAD
UNLOAD
AV CONT
RESET
CAP ROT
DRM ROT
REEL FG
S901 REC PROOF SW
CN605 (BLK)
REC PROOF
CN606 (WHT)
C IN
C ON
CN607 (YEL)
C.DWN.
S902 CASSETTE DOWN SW
S903 LOADING END SW
S904 UNLOADING END SW
CN608 (RED)
LOAD END
UNLOAD END
TP601
TP602
TP603
TP605
CN001 (WHT)
CS-3 BOARD
S301 CASSETTE IN
CS-4 BOARD
S302 CASSETTE ON
( ) : REW mode
Q604, 606
2SC2785
AMP
D607
1SS119
SWITCH
Q606, 607
2SC2785
SWITCH
Q608
2SA1175
SWITCH
L902 REW SENSOR
CN603 (WHT)
REW SENS (X)
REW SENS (Y)
Q611
2SC2785
AMP
D608
MC931
Q609,610,612
2SC2785
SWITCH
L901 FWD SENSOR
CN604 (WHT)
SW 12V (E)
S END SENS
GND (E)
FU-14 BOARD
ON/STANDBY
PAUSE
PLAY
REW
FF
STOP
EJECT
CN614 (WHT)
POWER SW
PAUSE KEY
PB KEY
REW KEY
FF KEY
STOP KEY
EJECT KEY
CN613 (BLK)
PAUSE LED
PB LED
REW LED
FF LED
CASSETTE LED
SW 5V
CASSETTE INSIDE
D706 TLG123A
D705 TLO123
D704 TLG123A
D703 TLY123
D702 TLY123
D701 TLO123
Q626
2SA874
SWITCH
Q621-625
2SC2785
CAMERA PAUSE
Q627-632
2SA1175
LED DRIVE
[ ] : REC-PAUSE mode
CN615 (WHT)
TU SEL SW.
BNR CONT b
BIAS CONT
AUDIO MUTE 2
REC PAUSE
PB+DUB
AUDIO MUTE 3
TO TUNER, AUDIO BLOCK AM-4 BOARD CN502
SW-27 BOARD
INPUT SELECT
TU
LINE
BNR
ON
OFF
TRACON
S602
S601
RV601 100k
TO VIDEO BLOCK YC-25 BOARD CN004
CN306 (YEL)
CN309 (BLK)
CN312 (RED)
TO VIDEO BLOCK YC-25 BOARD CN008
C. INS
L903 CTL HEAD
CN307 (WHT)
CTL HEAD(X)
CTL HEAD(Y)
CN609 (WHT)
TO POWER SUPPLY, TIMER BLOCK PS-22 BOARD CN301
Q619
2SD773
PLUNGER DRIVE
D614,616,617
1SS119
SURGE PROTECTOR
Q620
2SD1164
PLUNGER DRIVE
CN611 (BLK)
PINCH PL (C)
PINCH PL (S)
PINCH PL (H)
PM902 PINCH PLUNGER
Q613,614,617,618
2SC2785
SWITCH
Q615
2SD773
PLUNGER DRIVE
D610,612,613
1SS119
SURGE PROTECTOR
Q616
2SD1164
PLUNGER DRIVE
CN610 (YEL)
UNBRK PL (C)
UNBRK PL (S)
UNBRK PL (H)
PM901 BRAKE PLUNGER
TP604
no mark : REC mode
RD-7 BOARD
D001
GP-2S02A
[ ] : REV mode
RD-6 BOARD
D001
GP-2S02A
CN310 (WHT)
Vcc
T REEL FG
GND (E)
CN311 (RED)
S REEL FG
SS-16 BOARD (1/2)

LM-8 (NOISE FILTER) **CAPSTAN MOTOR** (CAPSTAN MOTOR) **REEL MOTOR** (REEL MOTOR) **CS-3** (CASSETTE ON SWITCH) **CS-4** (CASSETTE IN SWITCH)

– Ref. No. SS-16, EJ-4 BOARD: 3000 series, FU-14 BOARD: 4700 series, SW-27 BOARD: 4
REELMOTOR BOARD: 5000 series, CS-3, CS-4 BOARD: 9300 series –



SS-16 BOARD (1/2) -SERVO-
IC301 CX-194B SERVO
SW-27 BOARD
RD-7 BOARD
D001 GP-2S02A
RD-6 BOARD
EJ-4 BOARD
CAPSTA
REEL MO
no mark : REC mode
( ) : PB mode
< > : CUE mode
[ ] : FF/REW mode
(( )) : LOADING/THREADING mode
« » : EJECT mode
[[ ]] : REV mode
no mark : REC mode
[[ ]] : REV mode
Q301 2SC2785 SWITCH
Q345 2SD789 REGULATOR
D301 RD10EB2 REGULATOR
D302 MC921 SWITCH
Q621-625 2SC2785 CAMERA PAUSE
Q626 2SA874 SWITCH
D614,616,617 1SS119 SURGE PROTECTOR
Q620 2SD1164 PLUNGER DRIVE
D610,612,613 1SS119 SURGE PROTECTOR
Q616 2SD1164 PLUNGER DRIVE
PM902 PINCH PLUNGER
PM901 BRAKE PLUNGER
L903 CTL HEAD
D341 TLR123 LEVEL SHIFT
IC302(1/2) μPC358C CTL AMP
IC308(1/2) μPC358C AMP
D313,314 1SS119 FLY WHEEL
D315,316 1SS119 FLY WHEEL
Q340,341 2SB740 MOTOR DRIVE
Q342,343 2SD789 MOTOR DRIVE
IC304(1/4) μPC324C LPF
IC307(1/3) TC4053BP SWITCH
IC305(1/2) TC4053BP
IC306(1/4) μPC324C LPF
IC303(1/2) μPC4558C CAP FG AMP
Q314 2SC1475 MOTOR DRIVE
Q312 2SD789 MOTOR DRIVE
M901 DRUM MOTOR
Q335 2SD788 SWITCH
Q334 2SC1061 MOTOR DRIVE
D326 RD6.2EB REGULATOR
TO TUNER, AUDIO BLOCK AM-4 BOARD CN502
TO VIDEO BLOCK YC-25 BOARD CN004
TO VIDEO BLOCK YC-25 BOARD CN008
TO POWER SUPPLY, TIMER BLOCK PS-22 BOARD CN301
TP401 TP402 TP403 TP404 TP405 TP406 TP407 TP409 TP410
DRUM FREE SPEED
TRACKING CENTER
FWD TORQUE

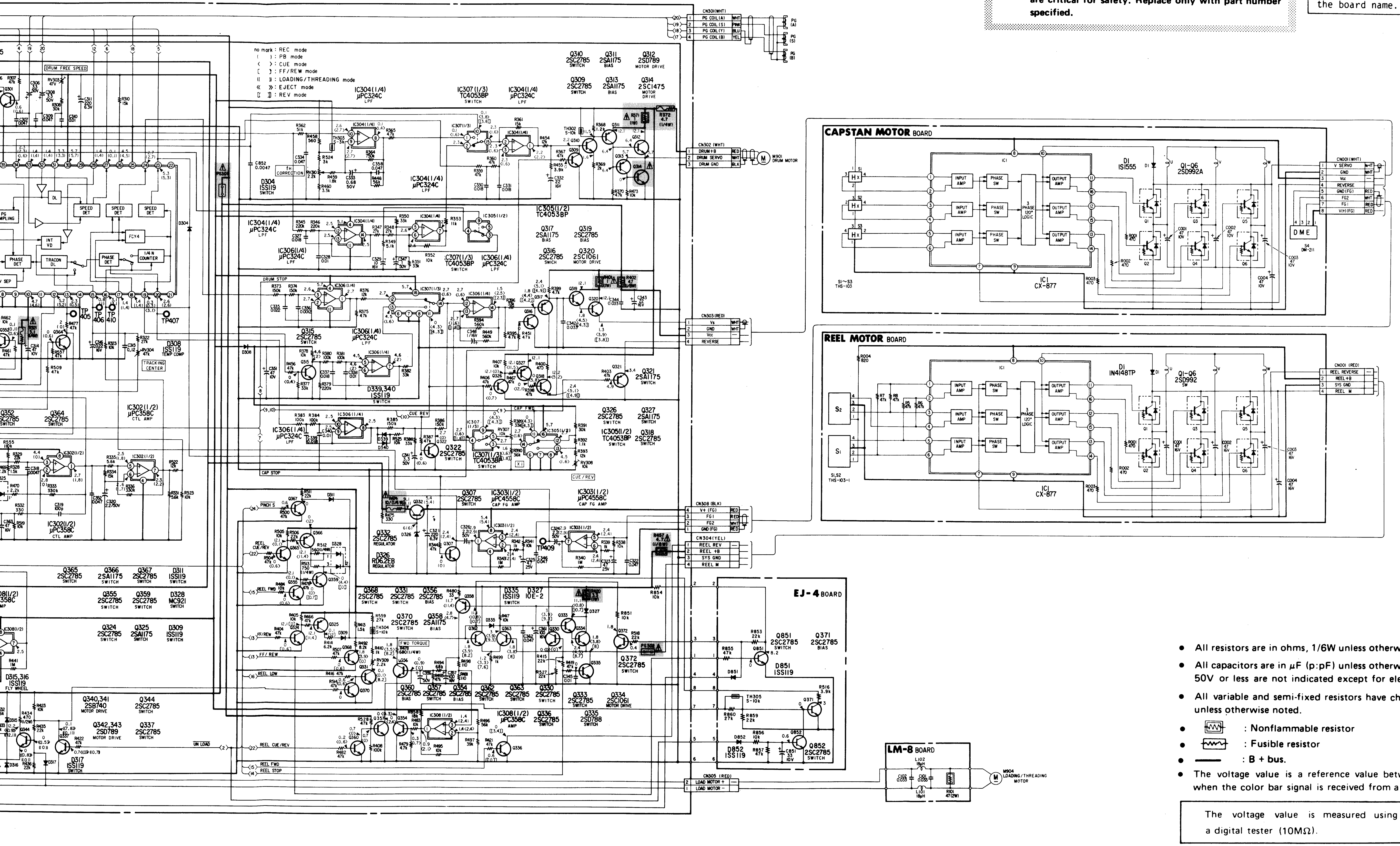
(REEL MOTOR) **CS-3** (CASSETTE ON SWITCH) **CS-4** (CASSETTE IN SWITCH)

– Ref. No. SS-16, EJ-4 BOARD: 3000 series, FU-14 BOARD: 4700 series, SW-27 BOARD: 4600 series, RD-6, RD-7 BOARD: 9200 series, LM-8 BOARD: 9100 series, CAPSTANMOTOR BOARD: 5100 series, REELMOTOR BOARD: 5000 series, CS-3, CS-4 BOARD: 9300 series –

T | U | V | W | X | Y | Z | A1 | B1 | C1 | D1 | E1 | F1 | G1 | H1 | I1

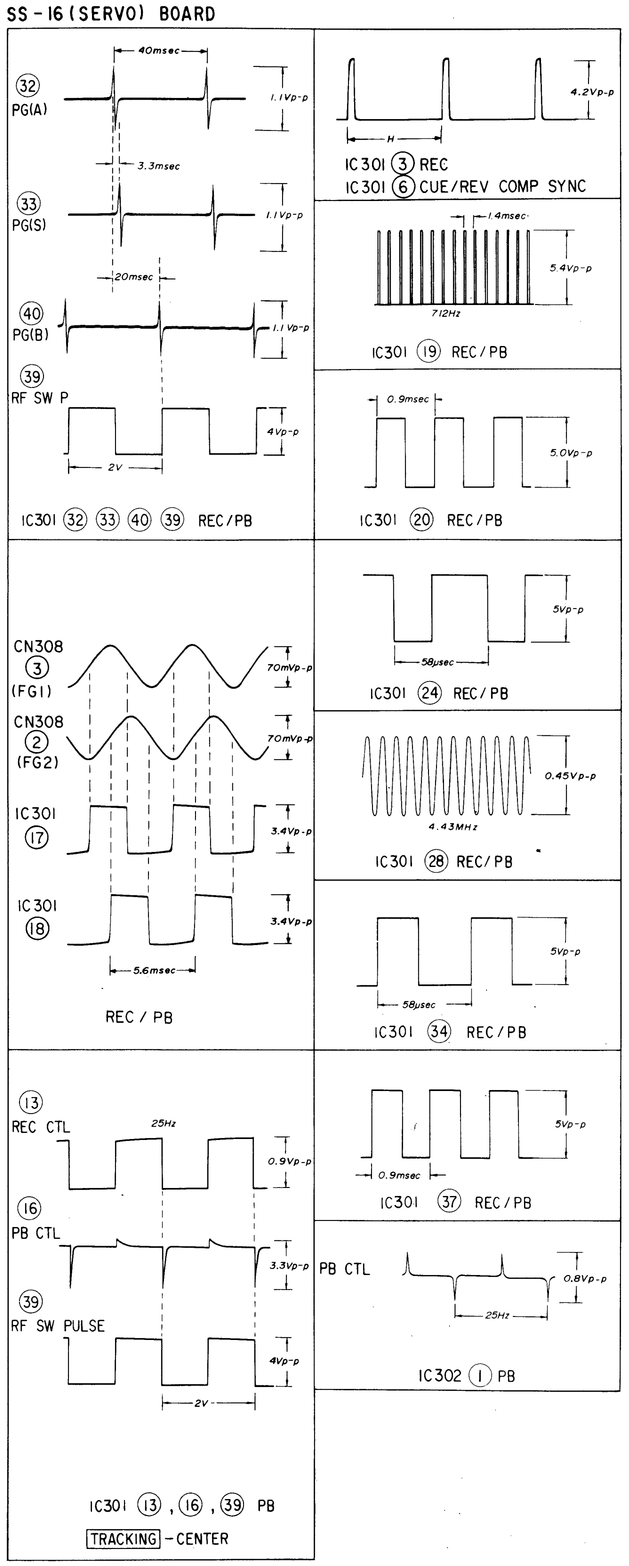
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

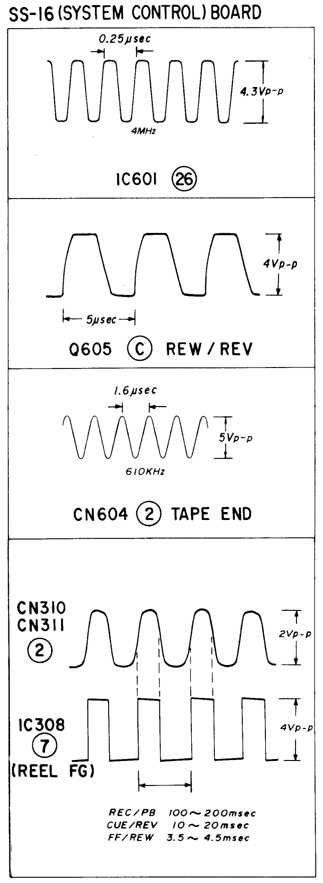
When indicating parts by reference number, please include the board name.



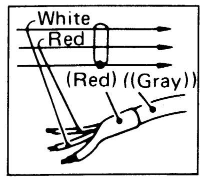
- All resistors are in ohms, 1/6W unless otherwise noted.
- All capacitors are in μF (p:pF) unless otherwise noted. 50V or less are not indicated except for electrolytic capacitors.
- All variable and semi-fixed resistors have characteristic curve B, unless otherwise noted.
- ▭ : Nonflammable resistor
- ▭ : Fusible resistor
- —— : B + bus.
- The voltage value is a reference value between the grounding when the color bar signal is received from a color bar generator.

The voltage value is measured using a digital tester (10MΩ).





- Color code of sleeving over the end of the jacket.

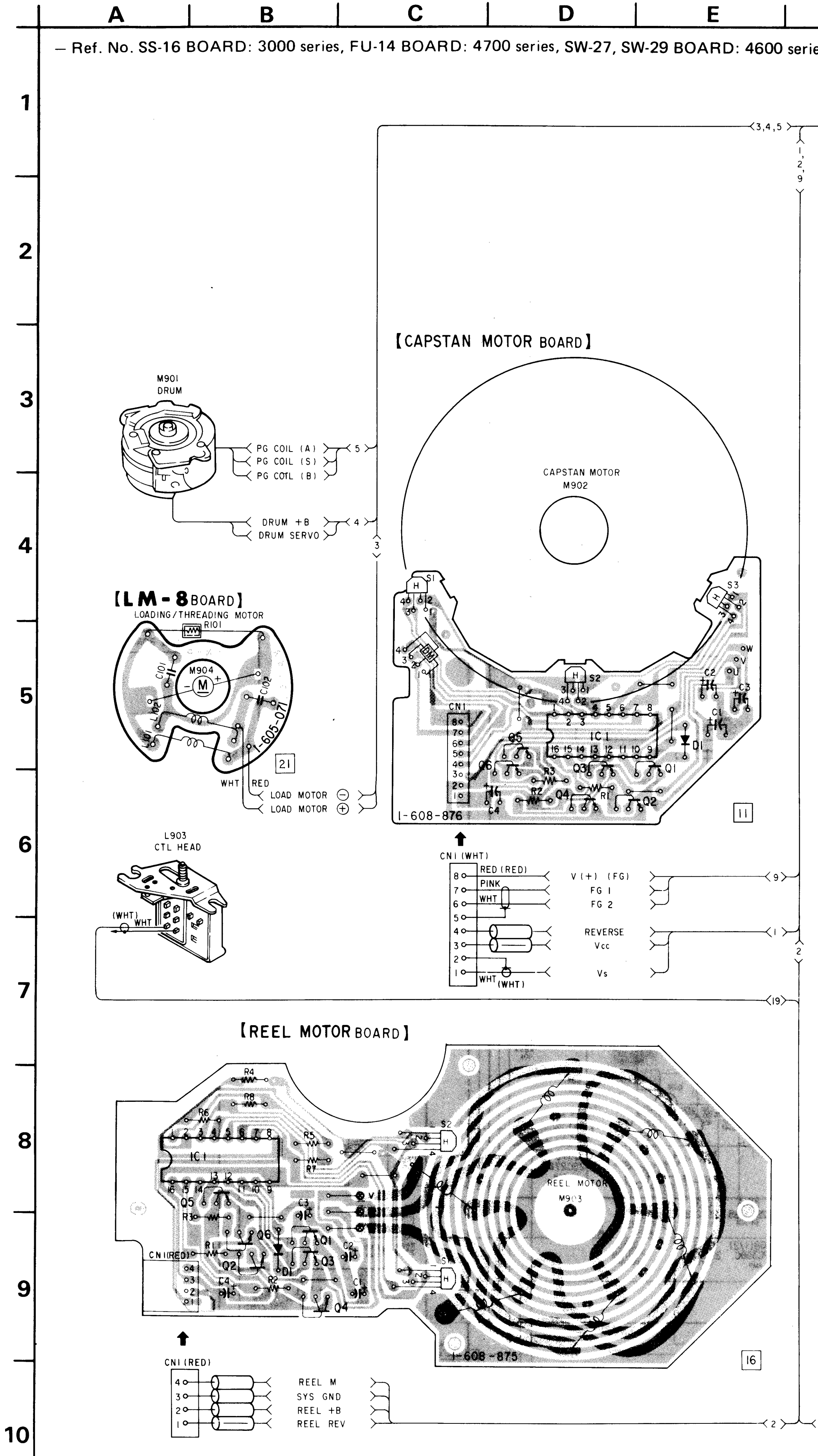

White
Red
(Red)
((Gray))

- ○— indicates a lead wire mounted on the component side.
- ●— indicates a lead wire mounted on the printed side.
- ▨ Soldering side
- Component side
- ▨ B + pattern

- Serial No. 800001 and higher (UK MODEL)
- Serial No. 809001 and higher (AEP MODEL)

SS-16 (SERVO/SYSTEM CONTROL) **FU-14** (FUNCTION SWITCH) **SW-27, SW-29** (TONE INPUT SELECT SWITCH TRACKING) **RD-6** (ROTATION DETECTOR) **RD-7**

– Ref. No. SS-16 BOARD: 3000 series, FU-14 BOARD: 4700 series, SW-27, SW-29 BOARD: 4600 series, RD-6, RD-7 BOARD: 9200 series, LM-8 BOARD: 9100 series, CAPSTANMOTOR BOARD: 5100


A
B
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G
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J
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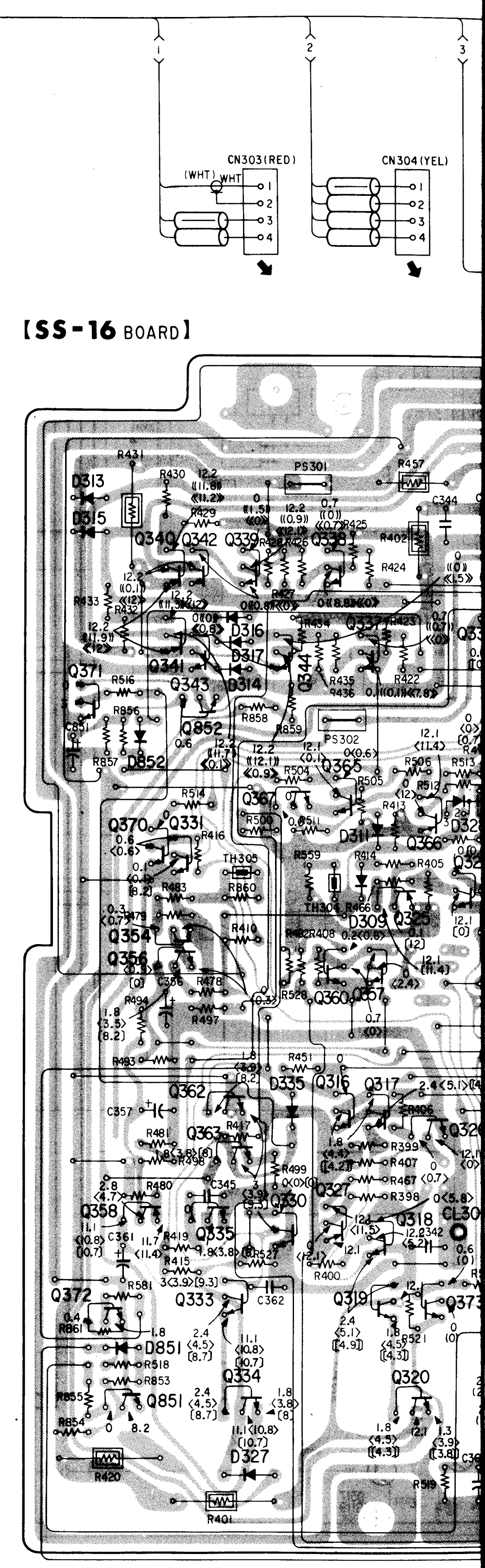
6
7
8
9
10
[CAPSTAN MOTOR BOARD]
CAPSTAN MOTOR
M902
M901
DRUM
PG COIL (A)
PG COIL (S)
PG COIL (B)
DRUM +B
DRUM SERVO
[LM-8 BOARD]
LOADING/THREADING MOTOR
R101
M904
WHT
RED
LOAD MOTOR ⊖
LOAD MOTOR ⊕
21
1-608-876
11
CN1 (WHT)
RED (RED)
PINK
WHT
WHT (WHT)
V(+) (FG)
FG 1
FG 2
REVERSE
Vcc
Vs
L903
CTL HEAD
(WHT)
WHT
[REEL MOTOR BOARD]
REEL MOTOR
M913
1-608-875
16
CN1 (RED)
CN1 (RED)
REEL M
SYS GND
REEL +B
REEL REV

Q・IC	D	TP・RV
349,346 339 302,303,352 340,342,338 347,348 314 313 616 341,344,337 604,614 343 336 321 312 311,IC308 371,852 615 345 310 605,613 355 309 332 359 367,365 301 366 620 618 IC301 368 608 606 607,617 307 609,612 331 370,331 324 IC303 325 611 354 IC304 610,619 356,360,357 364 IC305 636 362,316,317 326 363 327 315 IC307 IC306 IC601 358,335,330,318 322 372 627 333 319 373 851 IC302 334,320,306,305 626 624,623,631,630,629,628 304,622,621,625,633,634,632	313 315 613 316 317 301 314 302 612,610 326 852 617 607 328 311 616 309 614 330 608 329 308 304 335 339,340 851 306 341 327 325	406 RV302 CL303 404 402 403 RV309,RV304 RV301 405 RV303 410 401 RV310 409 RV308,RV307 605 407,601 CL302 CL301

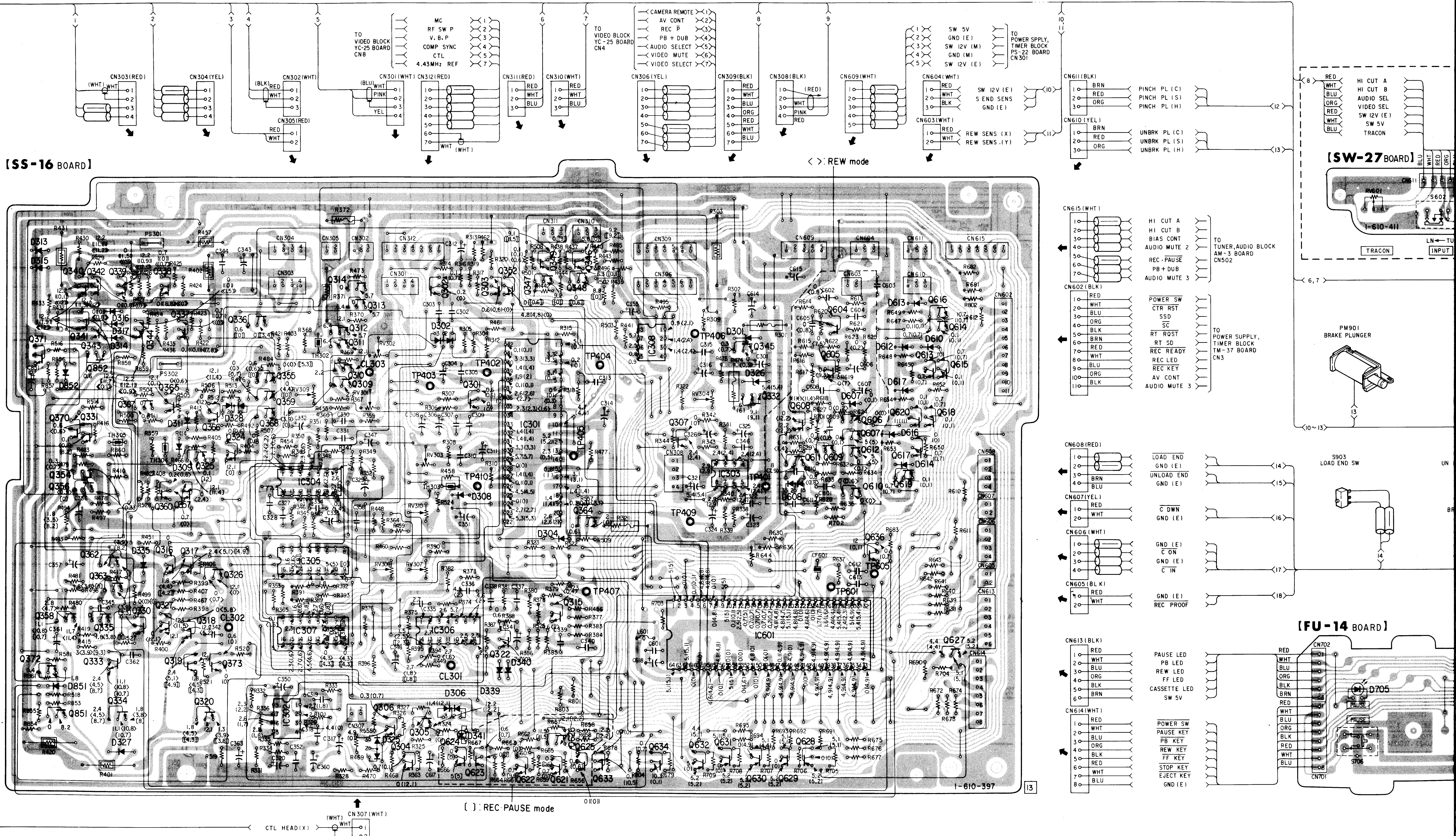

CN303 (RED)
CN304 (YEL)
(WHT)
WHT
[SS-16 BOARD]
Q313
Q315
Q340
Q342
Q339
PS301
Q371
Q341
Q343
Q852
D852
Q370
Q331
Q354
Q356
Q362
Q363
Q358
Q372
D851
Q851
Q334
D327
Q335
Q316
Q317
Q318
Q319
Q320
Q333
TH305
TH306
PS302
R401
R420

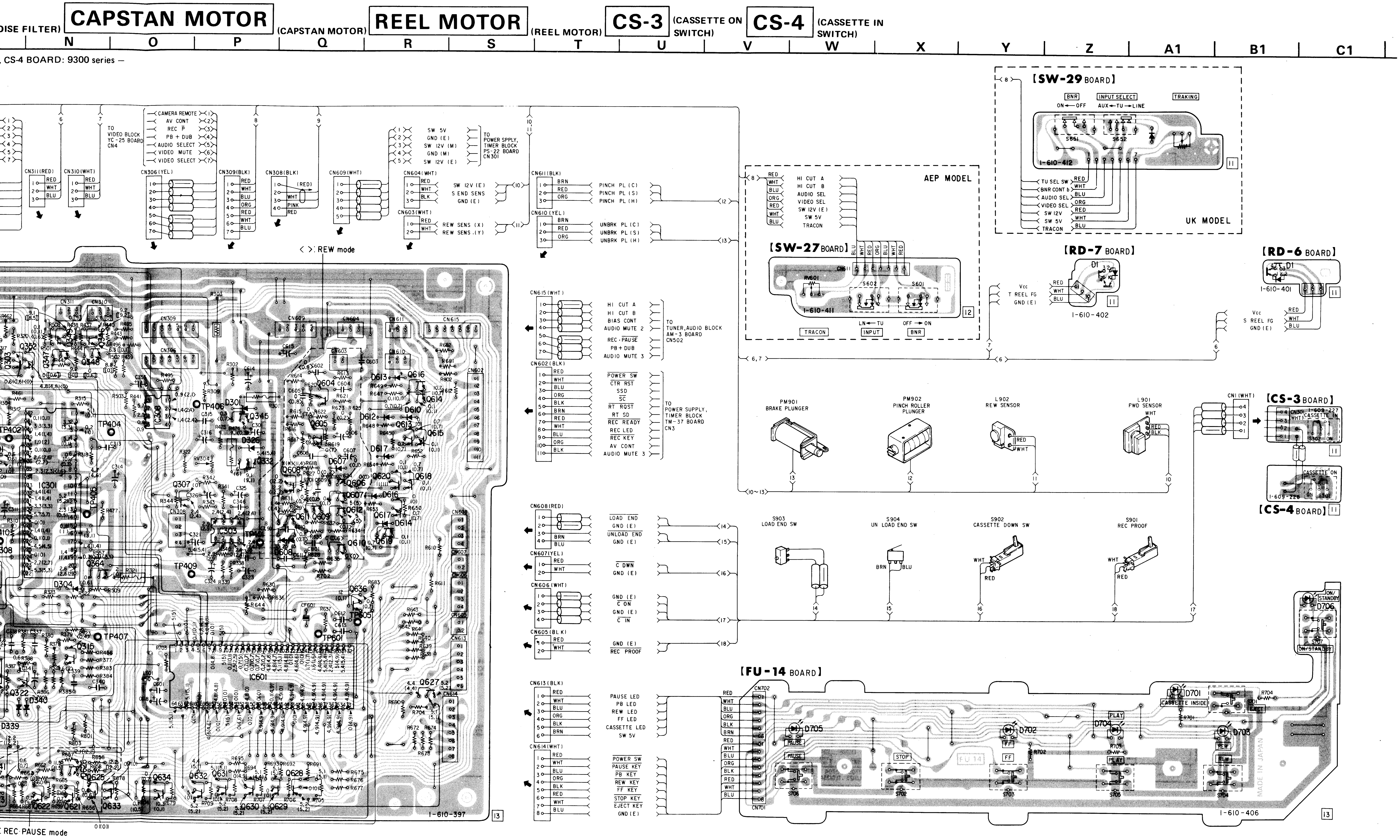
NE INPUT SELECT TCH TRACKING) **RD-6** (ROTATION DETECTOR) **RD-7** (ROTATION DETECTOR) **LM-8** (NOISE FILTER) **CAPSTAN MOTOR** (CAPSTAN MOTOR) **REEL MOTOR** (REEL MOTOR) **CS-3** (CASSETTE ON SWITCH) **CS-4** (CASSETTE IN SWITCH)

G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W

D: 9200 series, LM-8 BOARD: 9100 series, CAPSTANMOTOR BOARD: 5100 series, REELMOTOR BOARD: 5000 series, CS-3, CS-4 BOARD: 9300 series –

	D	TP · RV
	313	
6	315	
8		
	613	
616 ,614	316 317 301	406
	314 302 612,610	RV302
615		CL303 404
,613		402
	326	403
	852 617	RV309,RV304 RV301
	607	
618 6 ,617 612	328 311 616	
	309 614	405 RV303
,619	330 608 329 308	410 401
		RV310 409
	304	
		RV308,RV307 605
6	335	
		407,601
601		
		CL302
27		CL301
	339,340	
	851	
	306	
	341	
628 632	327 325	


[SS-16 BOARD]
CN303(RED)
CN304(YEL)
CN302(WHT)
CN305(RED)
TO VIDEO BLOCK YC-25 BOARD CN8
MC
RF SW P
V. B. P
COMP SYNC
CTL
4.43MHz REF
CN301(WHT)
CN312(RED)
CN311(RED)
CN310(WHT)
TO VIDEO BLOCK YC-25 BOARD CN4
CAMERA REMOTE
AV CONT
REC P̄
PB + DUB
AUDIO SELECT
VIDEO MUTE
VIDEO SELECT
CN306(YEL)
CN309(BLK)
CN308(BLK)
CN609(WHT)
SW 5V
GND (E)
SW 12V (M)
GND (M)
SW 12V (E)
TO POWER SPPLY, TIMER BLOCK PS-22 BOARD CN301
CN604(WHT)
SW 12V (E)
S END SENS
GND (E)
CN603(WHT)
REW SENS (X)
REW SENS (Y)
< >: REW mode
CN611(BLK)
PINCH PL (C)
PINCH PL (S)
PINCH PL (H)
CN610(YEL)
UNBRK PL (C)
UNBRK PL (S)
UNBRK PL (H)
HI CUT A
HI CUT B
AUDIO SEL
VIDEO SEL
SW 12V (E)
SW 5V
TRACON
[SW-27 BOARD]
RV601
S602
1-610-411
TRACON
INPUT
LN← TU
CN615(WHT)
HI CUT A
HI CUT B
BIAS CONT
AUDIO MUTE 2
REC·PAUSE
PB+DUB
AUDIO MUTE 3
TO TUNER, AUDIO BLOCK AM-3 BOARD CN502
CN602(BLK)
POWER SW
CTR RST
SSD
SC
RT RQST
RT SD
REC READY
REC LED
REC KEY
AV CONT
AUDIO MUTE 3
TO POWER SUPPLY, TIMER BLOCK TM-37 BOARD CN3
PM901 BRAKE PLUNGER
CN608(RED)
LOAD END
GND (E)
UNLOAD END
GND (E)
CN607(YEL)
C DWN
GND (E)
CN606(WHT)
GND (E)
C ON
GND (E)
C IN
CN605(BLK)
GND (E)
REC PROOF
S903 LOAD END SW
CN613(BLK)
PAUSE LED
PB LED
REW LED
FF LED
CASSETTE LED
SW 5V
CN614(WHT)
POWER SW
PAUSE KEY
PB KEY
REW KEY
FF KEY
STOP KEY
EJECT KEY
GND (E)
[FU-14 BOARD]
CN702
CN701
D705
PAUSE
S706
IC301
IC303
IC304
IC305
IC306
IC307
IC308
IC601
TP401
TP402
TP403
TP404
TP406
TP407
TP409
TP410
TP601
CL301
CL302
CL303
1-610-397
13
[ ]: REC·PAUSE mode
CN307(WHT)
CTL HEAD(X)

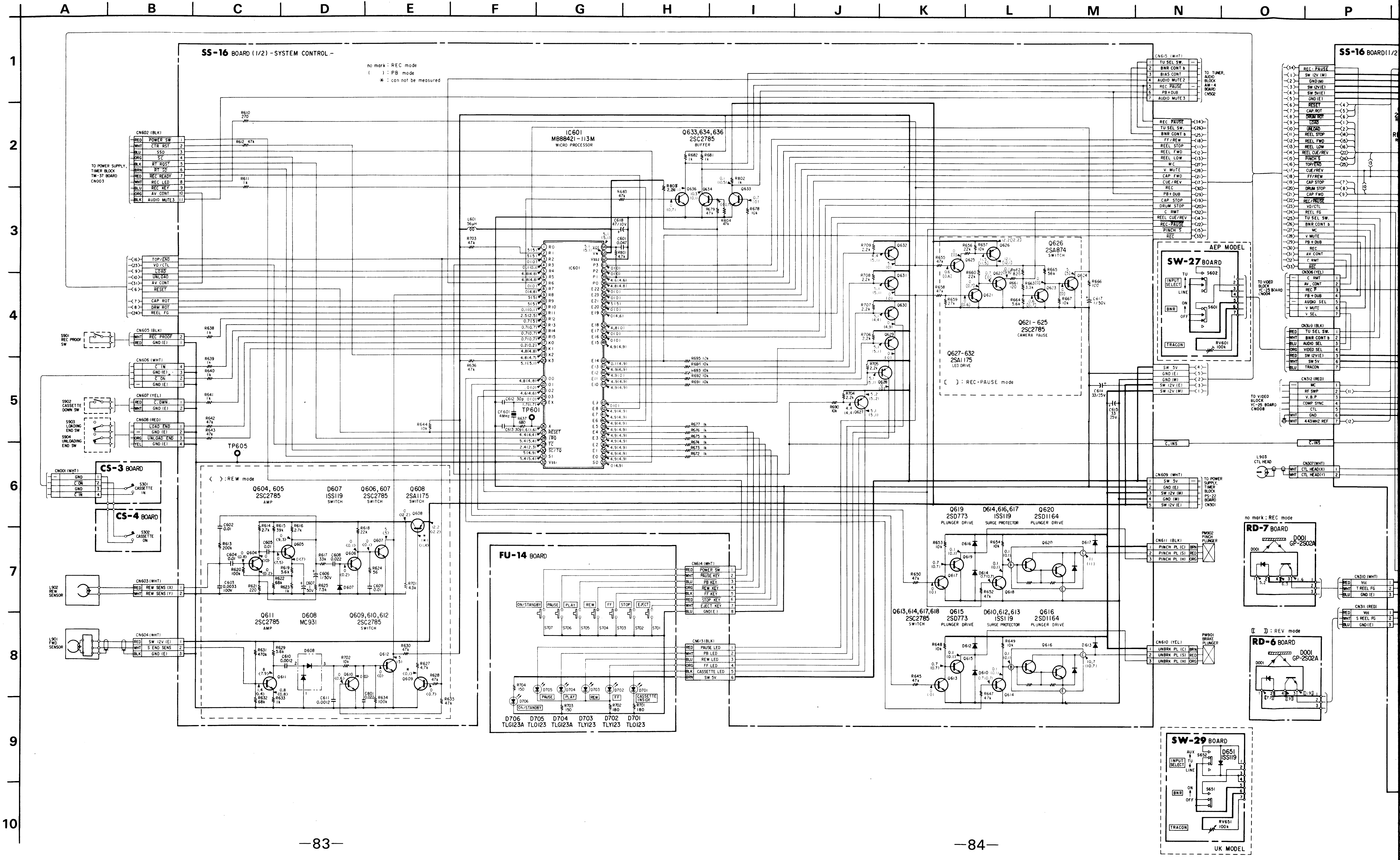


ISE FILTER)
CAPSTAN MOTOR
(CAPSTAN MOTOR)
REEL MOTOR
(REEL MOTOR)
CS-3
(CASSETTE ON SWITCH)
CS-4
(CASSETTE IN SWITCH)
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
A1
B1
C1
, CS-4 BOARD: 9300 series –
TO VIDEO BLOCK YC-25 BOARD CN4
CAMERA REMOTE
AV CONT
REC P
PB + DUB
AUDIO SELECT
VIDEO MUTE
VIDEO SELECT
SW 5V
GND (E)
SW 12V (M)
GND (M)
SW 12V (E)
TO POWER SPPLY, TIMER BLOCK PS-22 BOARD CN301
CN311 (RED)
CN310 (WHT)
CN306 (YEL)
CN309 (BLK)
CN308 (BLK)
CN609 (WHT)
CN604 (WHT)
CN603 (WHT)
CN611 (BLK)
CN610 (YEL)
SW 12V (E)
S END SENS
GND (E)
REW SENS (X)
REW SENS (Y)
PINCH PL (C)
PINCH PL (S)
PINCH PL (H)
UNBRK PL (C)
UNBRK PL (S)
UNBRK PL (H)
< >: REW mode
CN615 (WHT)
HI CUT A
HI CUT B
BIAS CONT
AUDIO MUTE 2
REC·PAUSE
PB + DUB
AUDIO MUTE 3
TO TUNER, AUDIO BLOCK AM-3 BOARD CN502
CN602 (BLK)
POWER SW
CTR RST
SSD
SC
RT RQST
RT SD
REC READY
REC LED
REC KEY
AV CONT
AUDIO MUTE 3
TO POWER SUPPLY, TIMER BLOCK TM-37 BOARD CN3
CN608 (RED)
LOAD END
GND (E)
UNLOAD END
GND (E)
CN607 (YEL)
C DWN
GND (E)
CN606 (WHT)
GND (E)
C ON
GND (E)
C IN
CN605 (BLK)
GND (E)
REC PROOF
CN613 (BLK)
PAUSE LED
PB LED
REW LED
FF LED
CASSETTE LED
SW 5V
CN614 (WHT)
POWER SW
PAUSE KEY
PB KEY
REW KEY
FF KEY
STOP KEY
EJECT KEY
GND (E)
IC301
IC601
1-610-397
REC·PAUSE mode
[SW-29 BOARD]
BNR
ON ← OFF
INPUT SELECT
AUX ← TU → LINE
TRAKING
S651
S652
1-610-412
TU SEL SW
BNR CONT b
AUDIO SEL
VIDEO SEL
SW 12V
SW 5V
TRACON
UK MODEL
AEP MODEL
HI CUT A
HI CUT B
AUDIO SEL
VIDEO SEL
SW 12V (E)
SW 5V
TRACON
[SW-27 BOARD]
RV601
S602
S601
1-610-411
TRACON
LN ← TU
INPUT
OFF → ON
BNR
[RD-7 BOARD]
Vcc
T REEL FG
GND (E)
1-610-402
[RD-6 BOARD]
1-610-401
Vcc
S REEL FG
GND (E)
PM901 BRAKE PLUNGER
PM902 PINCH ROLLER PLUNGER
L902 REW SENSOR
L901 FWD SENSOR
CN1 (WHT)
[CS-3 BOARD]
1-609-227
CASSETTE IN
S302
CASSETTE ON
1-609-228
[CS-4 BOARD]
S903 LOAD END SW
S904 UN LOAD END SW
S902 CASSETTE DOWN SW
S901 REC PROOF
[FU-14 BOARD]
CN702
CN701
D705
PAUSE
D702
FF
D704
PLAY
D703
REW
D701
CASSETTE INSIDE
EJECT
S706
S702
STOP
S703
S705
S704
S707
ON/STANDBY
D706
1-610-406
MADE IN JAPAN

- Serial No. 800001 and higher (UK MODEL)
- Serial No. 809001 and higher (AEP MODEL)

SERVO, SYSTEM CONTROL SERVO, SYSTEM CONTROL

SS-16 (SERVO/SYSTEM CONTROL) **FU-14** (FUNCTION SWITCH) **SW-27, SW-29** (TONE INPUT SELECT SWITCH TRACKING) **RD-6** (ROTATION DETECTOR) **RD-7** (ROTATION DETECTOR) **LM-8** (NOISE FILTER) **CAPSTAN MOTOR**


A
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M
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1
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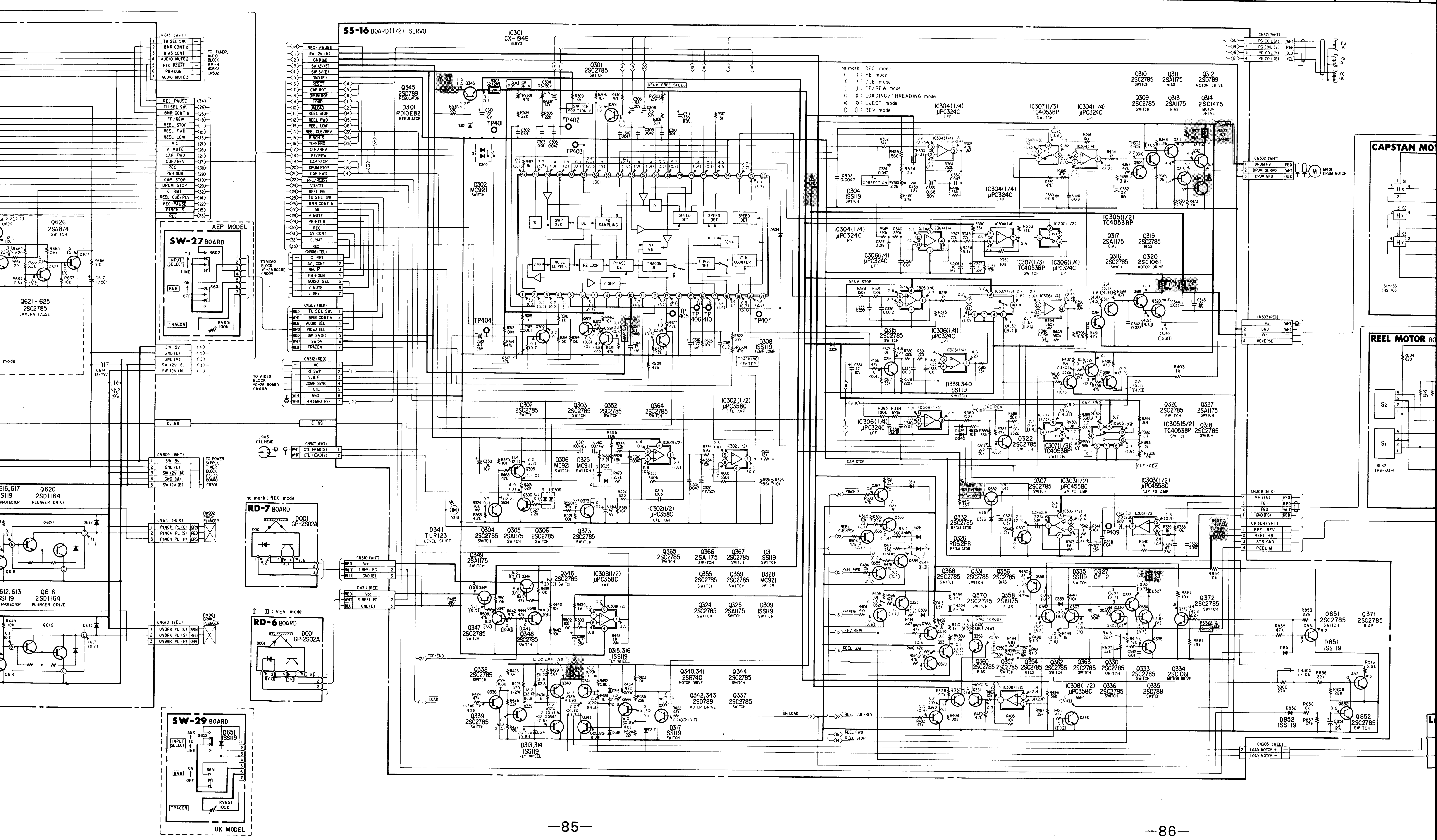
4
5
6
7
8
9
10
SS-16 BOARD (1/2) -SYSTEM CONTROL-
no mark : REC mode
( ) : PB mode
* : can not be measured
IC601
MB88421-113M
MICRO PROCESSOR
Q633,634,636
2SC2785
BUFFER
CN602 (BLK)
POWER SW
CTR RST
SSD
SC
RT RQST
RT SD
REC READY
REC LED
REC KEY
AV CONT
AUDIO MUTE 3
TO POWER SUPPLY, TIMER BLOCK TM-37 BOARD CN003
TOP/END
VD/CTL
LOAD
UNLOAD
AV CONT
RESET
CAP ROT
DRM ROT
REEL FG
S901 REC PROOF SW
CN605 (BLK)
REC PROOF
CN606 (WHT)
C IN
C ON
CN607 (YEL)
C.DWN.
S902 CASSETTE DOWN SW
CN608 (RED)
LOAD END
UNLOAD END
S903 LOADING END SW
S904 UNLOADING END SW
TP605
TP601
CN001 (WHT)
CS-3 BOARD
S301 CASSETTE IN
CS-4 BOARD
S302 CASSETTE ON
L902 REW SENSOR
CN603 (WHT)
REW SENS (X)
REW SENS (Y)
L901 FWD SENSOR
CN604 (WHT)
SW 12V (E)
S END SENS
< >: REW mode
Q604, 605 2SC2785 AMP
D607 1SS119 SWITCH
Q606, 607 2SC2785 SWITCH
Q608 2SA1175 SWITCH
Q611 2SC2785 AMP
D608 MC931
Q609,610,612 2SC2785 SWITCH
FU-14 BOARD
CN614 (WHT)
POWER SW
PAUSE KEY
PB KEY
REW KEY
FF KEY
STOP KEY
EJECT KEY
ON/STANDBY
PAUSE
PLAY
REW
FF
STOP
EJECT
S707
S706
S705
S704
S703
S702
S701
CN613 (BLK)
PAUSE LED
PB LED
REW LED
FF LED
CASSETTE LED
SW 5V
CASSETTE INSIDE
D706 TLG123A
D705 TLO123
D704 TLG123A
D703 TLY123
D702 TLY123
D701 TLO123
Q626 2SA874 SWITCH
Q621 - 625 2SC2785 CAMERA PAUSE
Q627-632 2SA1175 LED DRIVE
[ ] : REC-PAUSE mode
Q619 2SD773 PLUNGER DRIVE
D614,616,617 1SS119 SURGE PROTECTOR
Q620 2SD1164 PLUNGER DRIVE
Q613,614,617,618 2SC2785 SWITCH
Q615 2SD773 PLUNGER DRIVE
D610,612,613 1SS119 SURGE PROTECTOR
Q616 2SD1164 PLUNGER DRIVE
CN615 (WHT)
TU SEL SW.
BNR CONT b
BIAS CONT
AUDIO MUTE 2
REC PAUSE
PB+DUB
AUDIO MUTE 3
TO TUNER, AUDIO BLOCK AM-4 BOARD CN502
AEP MODEL
SW-27 BOARD
INPUT SELECT
TU
LINE
S602
BNR
ON
OFF
S601
TRACON
RV601 100k
TO VIDEO BLOCK YC-25 BOARD CN004
CN609 (WHT)
SW 5V
SW 12V (M)
GND (M)
SW 12V (E)
TO POWER SUPPLY, TIMER BLOCK PS-22 BOARD CN301
CN611 (BLK)
PINCH PL (C)
PINCH PL (S)
PINCH PL (H)
PM902 PINCH PLUNGER
CN610 (YEL)
UNBRK PL (C)
UNBRK PL (S)
UNBRK PL (H)
PM901 BRAKE PLUNGER
L903 CTL HEAD
CN307 (WHT)
CTL HEAD (X)
CTL HEAD (Y)
TO VIDEO BLOCK YC-25 BOARD CN008
CN312 (RED)
MC
RF SWP
V.B.P
COMP SYNC
CTL
4.43MHz REF
C.INS
CN306 (YEL)
CN309 (BLK)
CN310 (WHT)
CN311 (RED)
T REEL FG
S REEL FG
no mark : REC mode
RD-7 BOARD
D001 GP-2S02A
[ ] : REV mode
RD-6 BOARD
D001 GP-2S02A
SW-29 BOARD
D651 1SS119
AUX
TU
LINE
S652
S651
RV651 100k
UK MODEL
SS-16 BOARD (1/2)

CTOR) **LM-8** (NOISE FILTER) **CAPSTAN MOTOR** (CAPSTAN MOTOR) **REEL MOTOR** (REEL MOTOR) **CS-3** (CASSETTE ON SWITCH) **CS-4** (CASSETTE IN SWITCH)

– Ref. No. SS-16 BOARD: 3000 series, FU-14 BOARD: 4700 series, SW-27, SW-29 BOARD: 4600

L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A1 | B1

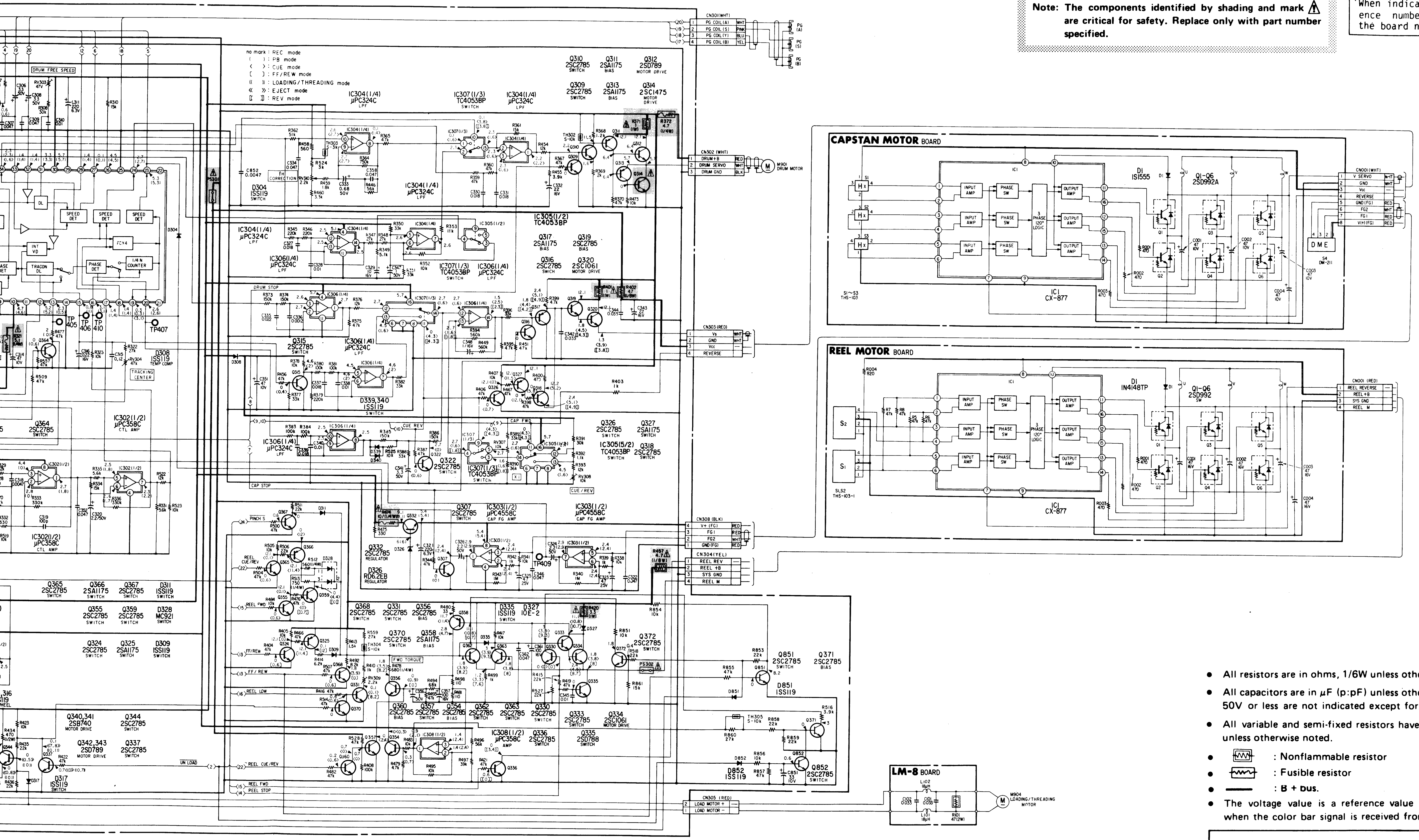

SS-16 BOARD (1/2) -SERVO-
IC301 CX-194B SERVO
Q301 2SC2785 SWITCH
Q345 2SD789 REGULATOR
D301 RD10EB2 REGULATOR
D302 MC921 SWITCH
TP401
TP402
TP403
TP404
TP405
TP406
TP407
TP409
TP410
DRUM FREE SPEED
SWITCH POSITION A
SWITCH POSITION B
SWP OSC
PG SAMPLING
SPEED DET
INT VD
NOISE CLIPPER
PZ LOOP
PHASE DET
TRACON DL
1/4 N COUNTER
V SEP
no mark : REC mode
( ) : PB mode
< > : CUE mode
[ ] : FF/REW mode
(( )) : LOADING/THREADING mode
« » : EJECT mode
[[ ]] : REV mode
IC304(1/4) µPC324C LPF
IC307(1/3) TC4053BP
IC305(1/2) TC4053BP
IC306(1/4) µPC324C LPF
Q310 2SC2785 SWITCH
Q311 2SA1175 BIAS
Q312 2SD789 MOTOR DRIVE
Q309 2SC2785 SWITCH
Q313 2SA1175 BIAS
Q314 2SC1475 MOTOR DRIVE
Q304 1SS119 SWITCH
Q317 2SA1175 BIAS
Q319 2SC2785 BIAS
Q316 2SC2785 SWITCH
Q320 2SC1061 MOTOR DRIVE
Q315 2SC2785 SWITCH
D339,340 1SS119 SWITCH
Q326 2SC2785 SWITCH
Q327 2SA1175
IC305(5/2) TC4053BP SWITCH
Q318 2SC2785
Q322 2SC2785 SWITCH
IC307(1/3) TC4053BP SWITCH
CAP STOP
CUE/REV
CAP FWD
DRUM STOP
Q307 2SC2785 SWITCH
IC303(1/2) µPC4558C CAP FG AMP
Q332 2SC2785 REGULATOR
D326 RD6.2EB REGULATOR
CN302 (WHT)
DRUM +B
DRUM SERVO
DRUM GND
M901 DRUM MOTOR
CN301 (WHT)
PG COIL (A)
PG COIL (S)
PG COIL (Y)
PG COIL (B)
CN303 (RED)
Vs
GND
Vcc
REVERSE
CN308 (BLK)
V+ (FG)
FG1
FG2
GND (FG)
CN304 (YEL)
REEL REV
REEL +B
SYS GND
REEL M
CN305 (RED)
LOAD MOTOR +
LOAD MOTOR –
CAPSTAN MO
REEL MOTOR BO
S1~S3 THS-103
S1, S2 THS-103-1
Q302 2SC2785
Q303 2SC2785 SWITCH
Q352 2SC2785 SWITCH
Q364 2SC2785 SWITCH
IC302(1/2) µPC358C CTL AMP
D308 1SS119 TEMP COMP
TRACKING CENTER
D306 MC921 SWITCH
D325 MC911 SWITCH
D341 TLR123 LEVEL SHIFT
Q304 2SC2785 SWITCH
Q305 2SC2785 SWITCH
Q306 2SC2785 SWITCH
Q373 2SC2785 SWITCH
Q349 2SA1175 SWITCH
Q346 2SC2785 SWITCH
IC308(1/2) µPC358C AMP
Q347 2SC2785 SWITCH
Q348 2SC2785 SWITCH
D315,316 1SS119 FLY WHEEL
Q338 2SC2785 SWITCH
Q339 2SC2785 SWITCH
D313,314 1SS119 FLY WHEEL
Q340,341 2SB740 MOTOR DRIVE
Q342,343 2SD789 MOTOR DRIVE
Q344 2SC2785 SWITCH
Q337 2SC2785 SWITCH
Q317 1SS119 SWITCH
Q365 2SC2785 SWITCH
Q366 2SA1175 SWITCH
Q367 2SC2785 SWITCH
D311 1SS119 SWITCH
Q355 2SC2785 SWITCH
Q359 2SC2785 SWITCH
D328 MC921 SWITCH
Q324 2SC2785 SWITCH
Q325 2SA1175 SWITCH
D309 1SS119 SWITCH
Q368 2SC2785 SWITCH
Q331 2SC2785 SWITCH
Q356 2SC2785 BIAS
Q370 2SC2785 SWITCH
Q358 2SA1175 BIAS
Q335 1SS119 SWITCH
Q327 10E-2
FWD TORQUE
Q360 2SC2785 BIAS
Q357 2SC2785 SWITCH
Q354 2SC2785 BIAS
Q362 2SC2785 SWITCH
Q363 2SC2785 SWITCH
Q330 2SC2785 SWITCH
Q333 2SC2785 SWITCH
Q334 2SC1061 MOTOR DRIVE
Q335 2SD788 MOTOR DRIVE
IC308(1/2) µPC358C AMP
Q336 2SC2785 SWITCH
Q372 2SC2785 SWITCH
Q851 2SC2785 SWITCH
Q371 2SC2785 BIAS
D851 1SS119
D852 1SS119
Q852 2SC2785 SWITCH
TH305 S-10k
PINCH S
REEL CUE/REV
REEL FWD
FF/REW
REEL LOW
TOP/END
LOAD
UN LOAD
REEL STOP
CN615 (WHT)
TU SEL SW.
BNR CONT b
BIAS CONT
AUDIO MUTE 2
REC PAUSE
PB + DUB
AUDIO MUTE 3
TO TUNER, AUDIO BLOCK AM-4 BOARD CN502
REC/PAUSE
SW 12V (M)
GND (M)
SW 12V (E)
SW 5V (E)
GND (E)
CAP. ROT
DRUM ROT
UNLOAD
REEL STOP
REEL FWD
REEL LOW
REEL CUE/REV
PINCH S
TOP/END
CUE/REV
CAP STOP
DRUM STOP
CAP FWD
VD/CTL
REEL FG
BNR CONT b
MC
V MUTE
PB + DUB
REC
AV CONT
C RMT
RESET
LOAD
FF/REW
REEL STOP
REEL FWD
REEL LOW
CAP FWD
CUE/REV
CAP STOP
DRUM STOP
C RMT
REEL CUE/REV
REC/PAUSE
PINCH S
AEP MODEL
SW-27 BOARD
INPUT SELECT
TU
LINE
BNR
ON
OFF
TRACON
S602
S601
RV601 100k
TO VIDEO BLOCK YC-25 BOARD CN004
CN306 (YEL)
C RMT
AV. CONT
REC
PB + DUB
AUDIO SEL
V MUTE
V SEL
CN309 (BLK)
TU SEL SW.
BNR CONT b
AUDIO SEL
VIDEO SEL
SW 12V (E)
SW 5V
TRACON
SW 5V
GND (E)
GND (M)
SW 12V (E)
SW 12V (M)
TO VIDEO BLOCK YC-25 BOARD CN008
CN312 (RED)
RF SWP
V.B.P
COMP SYNC
CTL
GND
4.43MHZ REF
C.INS
L903 CTL HEAD
CN307 (WHT)
CTL HEAD (X)
CTL HEAD (Y)
CN609 (WHT)
SW 5V
GND (E)
SW 12V (M)
GND (M)
SW 12V (E)
TO POWER SUPPLY, TIMER BLOCK PS-22 BOARD CN301
Q626 2SA874 SWITCH
Q621-625 2SC2785 CAMERA PAUSE
Q620 2SD1164 PLUNGER DRIVE
Q616 2SD1164 PLUNGER DRIVE
CN611 (BLK)
PINCH PL (C)
PINCH PL (S)
PINCH PL (H)
PM902 PINCH PLUNGER
CN610 (YEL)
UNBRK PL (C)
UNBRK PL (S)
UNBRK PL (H)
PM901 BRAKE PLUNGER
no mark : REC mode
RD-7 BOARD
D001 GP-2S02A
[[ ]] : REV mode
RD-6 BOARD
D001 GP-2S02A
CN310 (WHT)
Vcc
T REEL FG
GND (E)
CN311 (RED)
Vcc
S REEL FG
GND (E)
SW-29 BOARD
INPUT SELECT
AUX
TU
LINE
S652
D651 1SS119
S651
BNR
ON
OFF
TRACON
RV651 100k
UK MODEL

DR (REEL MOTOR) **CS-3** (CASSETTE ON SWITCH) **CS-4** (CASSETTE IN SWITCH) – Ref. No. SS-16 BOARD: 3000 series, FU-14 BOARD: 4700 series, SW-27, SW-29 BOARD: 4600 series, RD-6, RD-7 BOARD: 9200 series, LM-8 BOARD: 9100 series.

T | U | V | W | X | Y | Z | A1 | B1 | C1 | D1 | E1 | F1 | G1 | H1 | I1

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.


no mark : REC mode
( ) : PB mode
〈 〉 : CUE mode
[ ] : FF/REW mode
‖ ‖ : LOADING/THREADING mode
《 》 : EJECT mode
⟦ ⟧ : REV mode
DRUM FREE SPEED
SPEED DET
INT VD
TRACON DL
PHASE DET
FCY4
1/4 N COUNTER
CN301(WHT)
PG COIL(A)
PG COIL(S)
PG COIL(Y)
PG COIL(B)
CN302(WHT)
DRUM +B
DRUM SERVO
DRUM GND
M901 DRUM MOTOR
IC304(1/4) μPC324C LPF
IC307(1/3) TC4053BP SWITCH
IC305(1/2) TC4053BP
IC306(1/4) μPC324C LPF
IC302(1/2) μPC358C CTL AMP
IC303(1/2) μPC4558C CAP FG AMP
IC308(1/2) μPC358C AMP
Q310 2SC2785 SWITCH
Q311 2SA1175 BIAS
Q312 2SD789 MOTOR DRIVE
Q309 2SC2785 SWITCH
Q313 2SA1175 BIAS
Q314 2SC1475 MOTOR DRIVE
Q317 2SA1175 BIAS
Q319 2SC2785 BIAS
Q316 2SC2785 SWITCH
Q320 2SC1061 MOTOR DRIVE
Q315 2SC2785 SWITCH
D339,340 ISS119 SWITCH
Q326 2SC2785 SWITCH
Q327 2SA1175 SWITCH
IC305(5/2) TC4053BP SWITCH
Q318 2SC2785 SWITCH
Q322 2SC2785 SWITCH
Q307 2SC2785 SWITCH
Q332 2SC2785 REGULATOR
D326 RD6.2EB REGULATOR
D304 ISS119 SWITCH
D308 ISS119 TEMP COMP
TRACKING CENTER
Q364 2SC2785 SWITCH
Q365 2SC2785 SWITCH
Q366 2SA1175 SWITCH
Q367 2SC2785 SWITCH
D311 ISS119 SWITCH
Q355 2SC2785 SWITCH
Q359 2SC2785 SWITCH
D328 MC921 SWITCH
Q324 2SC2785 SWITCH
Q325 2SA1175 SWITCH
D309 ISS119 SWITCH
Q340,341 2SB740 MOTOR DRIVE
Q344 2SC2785 SWITCH
Q342,343 2SD789 MOTOR DRIVE
Q337 2SC2785 SWITCH
D317 ISS119 SWITCH
Q368 2SC2785 SWITCH
Q331 2SC2785 SWITCH
Q356 2SC2785 BIAS
Q370 2SC2785 SWITCH
Q358 2SA1175 BIAS
D335 ISS119 SWITCH
D327 10E-2
Q360 2SC2785 BIAS
Q357 2SC2785 SWITCH
Q354 2SC2785 BIAS
Q362 2SC2785 SWITCH
Q363 2SC2785 SWITCH
Q330 2SC2785 SWITCH
Q333 2SC2785 SWITCH
Q334 2SC1061 MOTOR DRIVE
Q335 2SD789 SWITCH
Q336 2SC2785 SWITCH
Q372 2SC2785 SWITCH
Q851 2SC2785 SWITCH
Q371 2SC2785 BIAS
D851 ISS119
D852 ISS119
Q852 2SC2785 SWITCH
CN303(RED)
Vs
GND
Vcc
REVERSE
CN308(BLK)
V+ (FG)
FG1
FG2
GND (FG)
CN304(YEL)
REEL REV
REEL +B
SYS GND
REEL M
CN305(RED)
LOAD MOTOR +
LOAD MOTOR −
PINCH S
REEL CUE/REV
REEL FWD
FF/REW
REEL LOW
UN LOAD
REEL STOP
CAP STOP
CAP FWD
CUE/REV
FWD TORQUE
DRUM STOP
TP405
TP406
TP410
TP407
TP409
CAPSTAN MOTOR BOARD
IC1 CX-877
D1 IS1555
Q1-Q6 2SD992A
INPUT AMP
PHASE SW
3 PHASE 120° LOGIC
OUTPUT AMP
S1~S3 THS-103
CN001(WHT)
V SERVO
GND
Vcc
REVERSE
GND (FG)
FG2
FG1
V (FG)
DME
S4 DM-21
REEL MOTOR BOARD
IC1 CX-877
D1 1N4148TP
Q1-Q6 2SD992
S1,S2 THS-103-1
CN001(RED)
REEL REVERSE
REEL +B
SYS GND
REEL M
LM-8 BOARD
M904 LOADING/THREADING MOTOR

- All resistors are in ohms, 1/6W unless otherwise noted.
- All capacitors are in μF (p:pF) unless otherwise noted. 50V or less are not indicated except for electrolytic capacitors.
- All variable and semi-fixed resistors have characteristic curve B, unless otherwise noted.
- : Nonflammable resistor
- : Fusible resistor
- : B + bus.
- The voltage value is a reference value between the grounding when the color bar signal is received from a color bar generator.

The voltage value is measured using a digital tester (10MΩ).

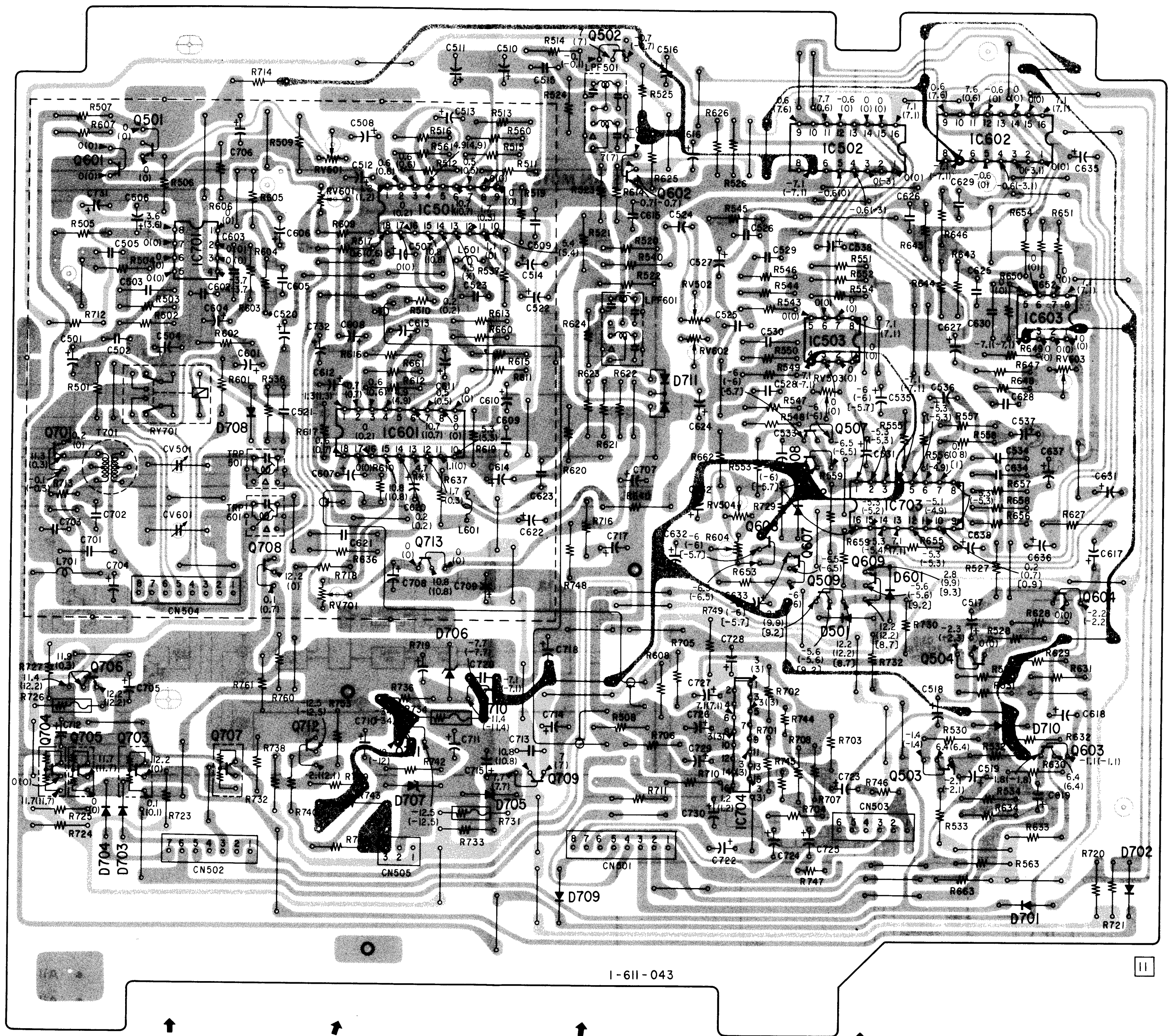
TU-50 (VIF, SIF, AFC, CHANNEL PRESET) **AM-4** (AUDIO RECORD/ PLAY BACK PROCESS) **CH-36** (CHANNEL SWITCH) **MT-7** (INTERMEDIATION)

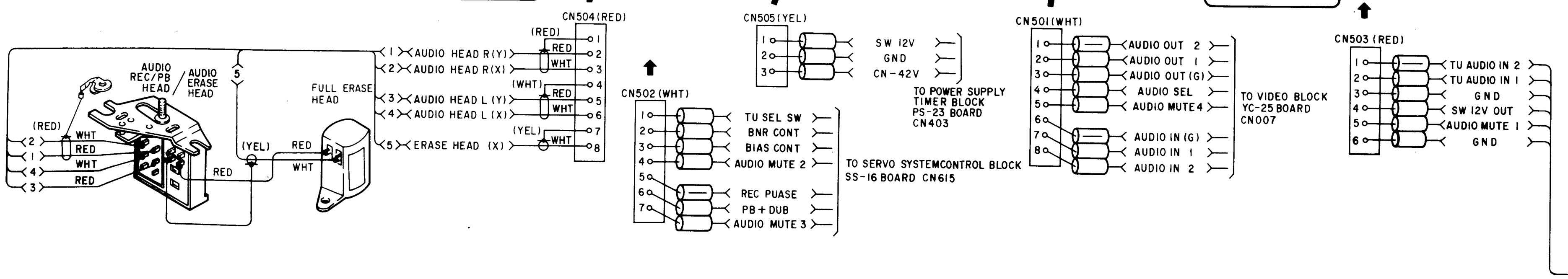
A B C D E F G H I J K L M N O P

– Ref. No. TU-50 BOARD: 4000 series, AM-4 BOARD: 5500 series, CH-36 BOARD: 8500 series –

	TP, ADJ	D	IC, Q
1			502 IC602 IC502
2	RV501 RV601		602 501 601 IC501
3	RV502 RV602 RV603 RV503		IC701 IC603 IC503
4	CV501 CV601 RV504	711 708	507 IC601,508 701
5	RV701	712 601 501	IC703 608,609 708,713,607 509,604
6		706 710	504 706 710 603 503 712 IC704 704,711, 705,709
7		704,707 703,705 701 702 709	703 707
8			

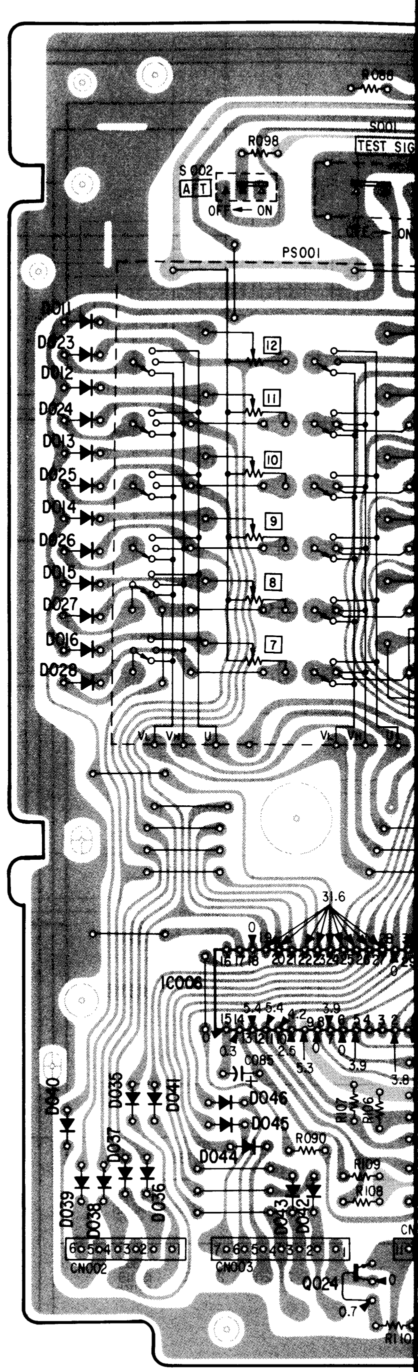
[AM-4 BOARD]

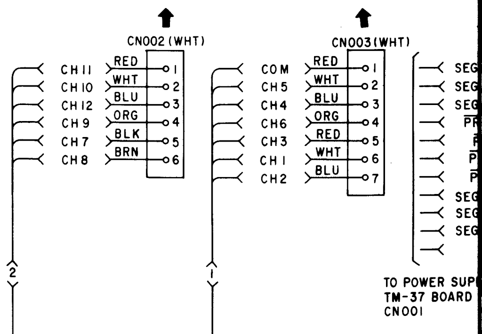

IC501
IC502
IC503
IC601
IC602
IC603
IC703
IC704
CN501
CN502
CN503
CN504
CN505
1-611-043


AUDIO REC/PB HEAD / AUDIO ERASE HEAD
FULL ERASE HEAD
(RED)
WHT
RED
(YEL)
CN504 (RED)
1 AUDIO HEAD R (Y)
2 AUDIO HEAD R (X)
3 AUDIO HEAD L (Y)
4 AUDIO HEAD L (X)
5 ERASE HEAD (X)
(WHT)
CN502 (WHT)
TU SEL SW
BNR CONT
BIAS CONT
AUDIO MUTE 2
REC PUASE
PB + DUB
AUDIO MUTE 3
TO SERVO SYSTEMCONTROL BLOCK SS-16 BOARD CN615
CN505 (YEL)
SW 12V
GND
CN-42V
TO POWER SUPPLY TIMER BLOCK PS-23 BOARD CN403
CN501 (WHT)
AUDIO OUT 2
AUDIO OUT 1
AUDIO OUT (G)
AUDIO SEL
AUDIO MUTE 4
AUDIO IN (G)
AUDIO IN 1
AUDIO IN 2
TO VIDEO BLOCK YC-25 BOARD CN007
CN503 (RED)
TU AUDIO IN 2
TU AUDIO IN 1
GND
SW 12V OUT
AUDIO MUTE 1
GND

	Q·IC	D	TP·RV
1	IC005 020		
2	016 001	007,008	001
3	017 IC001 IC002	011 017 023 029 012 018 024 030 013 019	RV001
4	002	025 031 014 020 026 032 015 021 027 033	RV002 RV003
5	003 018	016 022 028 034 005 004	
6	019 006 021 015 011 IC006 023 IC004 IC003 012 007	002 003 010	
7	022 009 008 026,027 014 025 010	009 035,041 046 040 045 044 037,036 039,038 043,042 006	
8	024 013		

[TU-50 BOARD]


S001
PS001
S002
ATT
ON
D036
D040
D045
D046
IC006
CN002
CN003
Q024

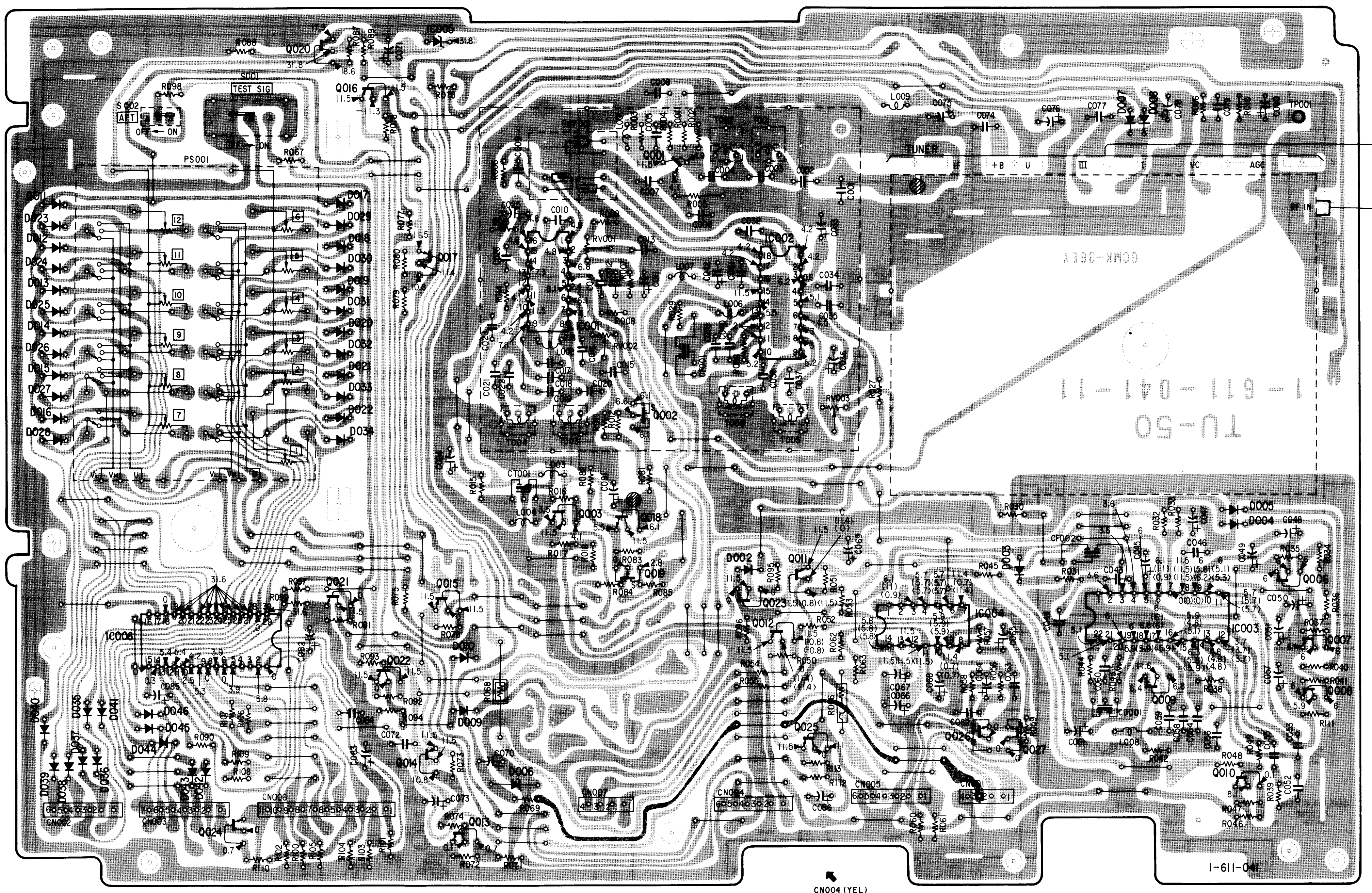

CN002 (WHT)
CH11 RED 1
CH10 WHT 2
CH12 BLU 3
CH9 ORG 4
CH7 BLK 5
CH8 BRN 6
CN003 (WHT)
COM RED 1
CH5 WHT 2
CH4 BLU 3
CH6 ORG 4
CH3 RED 5
CH1 WHT 6
CH2 BLU 7
2
1
TM-37 BOARD
CN001

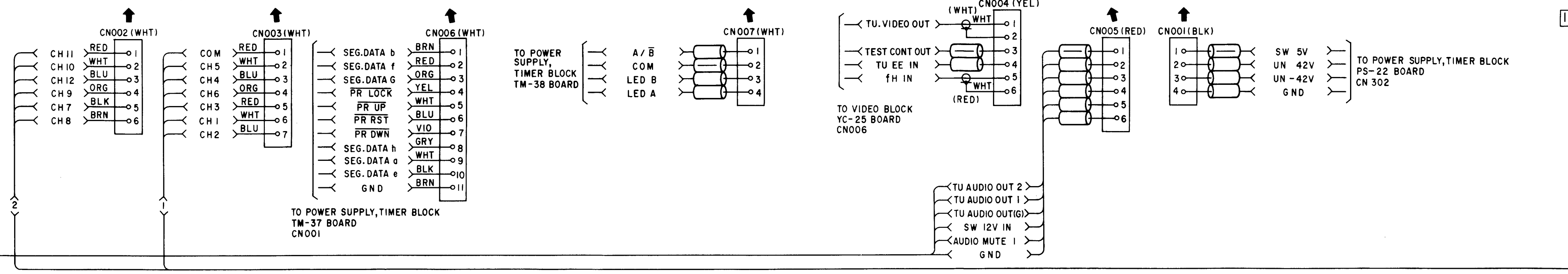
L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A1

C617
D702
R721
11

Q·IC	D	TP·RV
IC005		
020		
016	007,008	001
001		
	011 017	
017 IC001	023 029	RV001
IC002	012 018	
	024 030	
	013 019	
	025 031	
	014 020	RV002
	026 032	
	015 021	
002	027 033	RV003
	016 022	
	028 034	
003	005 004	
018		
019 006	002 003	
021 015 011 IC006 023 IC004 IC003		
012		
007	010	
022 009 008		
	009	
	035,041 046	
026,027	040 045 044	
014 025	037,036	
	039,038	
010	043,042	
	006	
024 013		

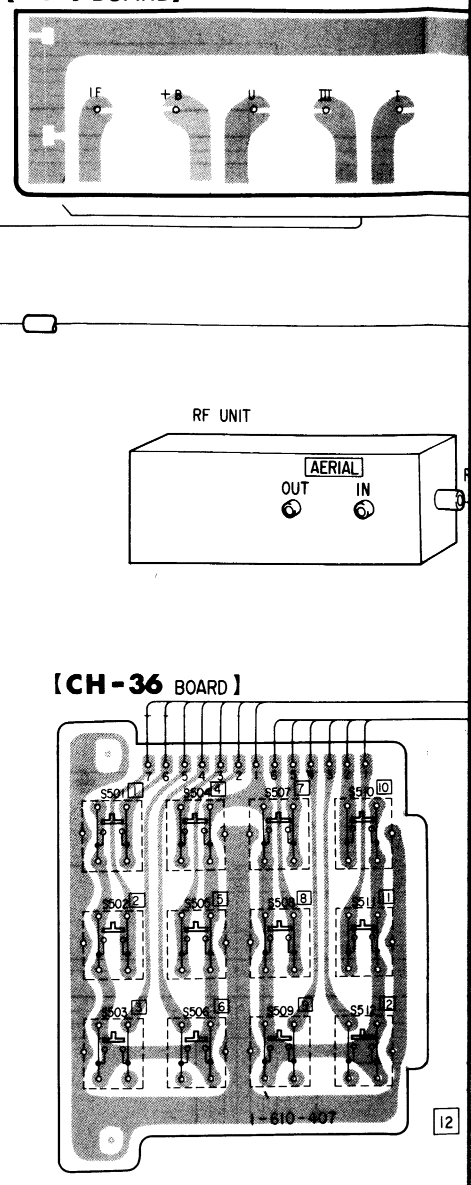
[TU-50 BOARD]

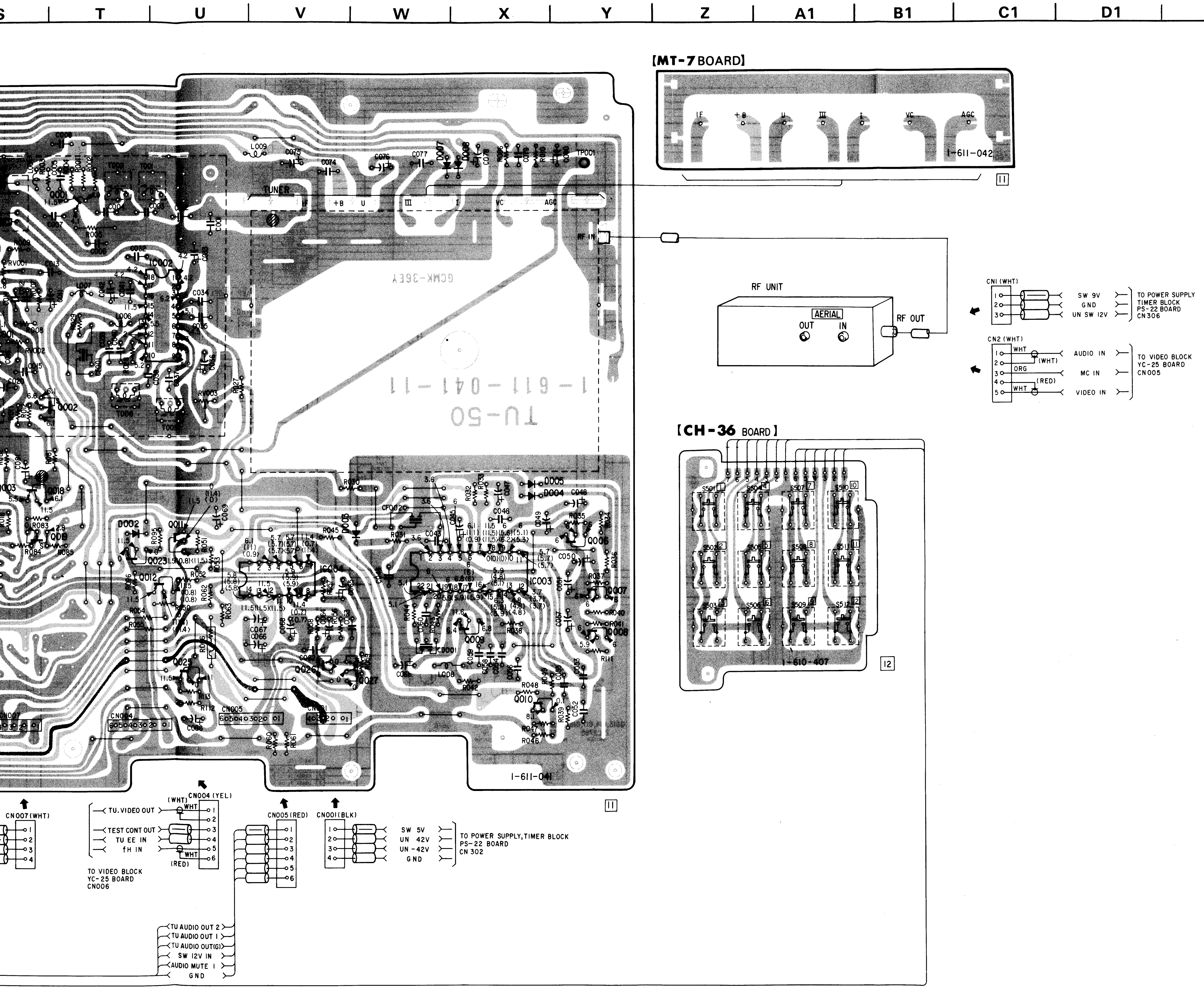

S001
TEST SIG
S002
AFT
OFF ON
PS001
TUNER
+B
U
III
I
VC
AGC
RF IN
TP001
GCMK-36EY
1-611-041-11
TU-50
IC001
IC002
IC003
IC004
IC005
IC006
CN002
CN003
CN006
CN007
CN004
CN005
CN001
1-611-041
11


CN002 (WHT)
CH11 RED 1
CH10 WHT 2
CH12 BLU 3
CH9 ORG 4
CH7 BLK 5
CH8 BRN 6
CN003 (WHT)
COM RED 1
CH5 WHT 2
CH4 BLU 3
CH6 ORG 4
CH3 RED 5
CH1 WHT 6
CH2 BLU 7
CN006 (WHT)
SEG.DATA b BRN 1
SEG.DATA f RED 2
SEG.DATA G ORG 3
PR LOCK YEL 4
PR UP WHT 5
PR RST BLU 6
PR DWN VIO 7
SEG.DATA h GRY 8
SEG.DATA a WHT 9
SEG.DATA e BLK 10
GND BRN 11
TO POWER SUPPLY, TIMER BLOCK
TM-37 BOARD
CN001
TO POWER SUPPLY, TIMER BLOCK TM-38 BOARD
A/B̄ 1
COM 2
LED B 3
LED A 4
CN007 (WHT)
CN004 (YEL)
(WHT) WHT
TU.VIDEO OUT 1
2
TEST CONT OUT 3
TU EE IN 4
fH IN 5
WHT 6
(RED)
TO VIDEO BLOCK
YC-25 BOARD
CN006
CN005 (RED)
TU AUDIO OUT 2
TU AUDIO OUT 1
TU AUDIO OUT(G)
SW 12V IN
AUDIO MUTE 1
GND
CN001 (BLK)
SW 5V 1
UN 42V 2
UN -42V 3
GND 4
TO POWER SUPPLY, TIMER BLOCK
PS-22 BOARD
CN 302
2
1

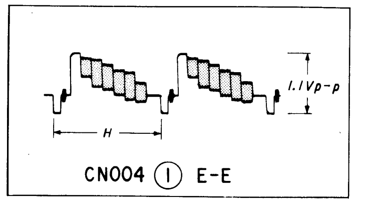
[MT-7 BOARD]

[CH-36 BOARD]

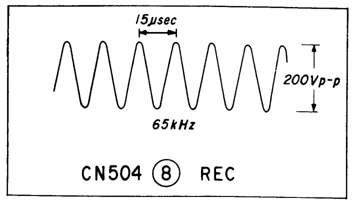

IF
+B
U
III
I
RF UNIT
AERIAL
OUT
IN
S501
S502
S503
S504
S505
S506
S507
S508
S509
S510
S511
S512
1-610-407
12


S
T
U
V
W
X
Y
Z
A1
B1
C1
D1
E1
F1
G1
H1
I1
[MT-7 BOARD]
IF
+B
U
III
I
VC
AGC
1-611-042
11
TUNER
RF IN
TP001
GCMK-36EY
1-611-041-11
TU-50
RF UNIT
AERIAL
OUT
IN
RF OUT
CN1 (WHT)
SW 9V
GND
UN SW 12V
TO POWER SUPPLY TIMER BLOCK PS-22 BOARD CN306
CN2 (WHT)
AUDIO IN
MC IN
VIDEO IN
TO VIDEO BLOCK YC-25 BOARD CN005
[CH-36 BOARD]
1-610-407
12
1-611-041
IC002
IC003
IC004
CN007 (WHT)
CN004 (YEL)
TU. VIDEO OUT
TEST CONT OUT
TU EE IN
fH IN
TO VIDEO BLOCK YC-25 BOARD CN006
CN005 (RED)
CN001 (BLK)
SW 5V
UN 42V
UN -42V
GND
TO POWER SUPPLY, TIMER BLOCK PS-22 BOARD CN 302
TU AUDIO OUT 2
TU AUDIO OUT 1
TU AUDIO OUT(G)
SW 12V IN
AUDIO MUTE 1
GND

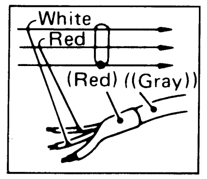
TU-50 BOARD



AM-4 BOARD



- Color code of sleeving over the end of the jacket.


White
Red
(Red) ((Gray))

- ○— indicates a lead wire mounted on the component side.
- ●— indicates a lead wire mounted on the printed side.
- ▨ Soldering side
- ▨ B + pattern
- ■ B – pattern

- All resistors are in ohms, 1/6W unless otherwise noted.
- All capacitors are in μF (p:pF) unless otherwise noted. 50V or less are not indicated except for electrolytic capacitors.
- All variable and semi-fixed resistors have characteristic curve B, unless otherwise noted.
- : Nonflammable resistor
- : Fusible resistor
- △ : Internal component
- ── : B + bus.
- --- : B – bus.
- The voltage value is a reference value between the grounding when the color bar signal is received from a color bar generator.

The voltage value is measured using a digital tester (10MΩ).

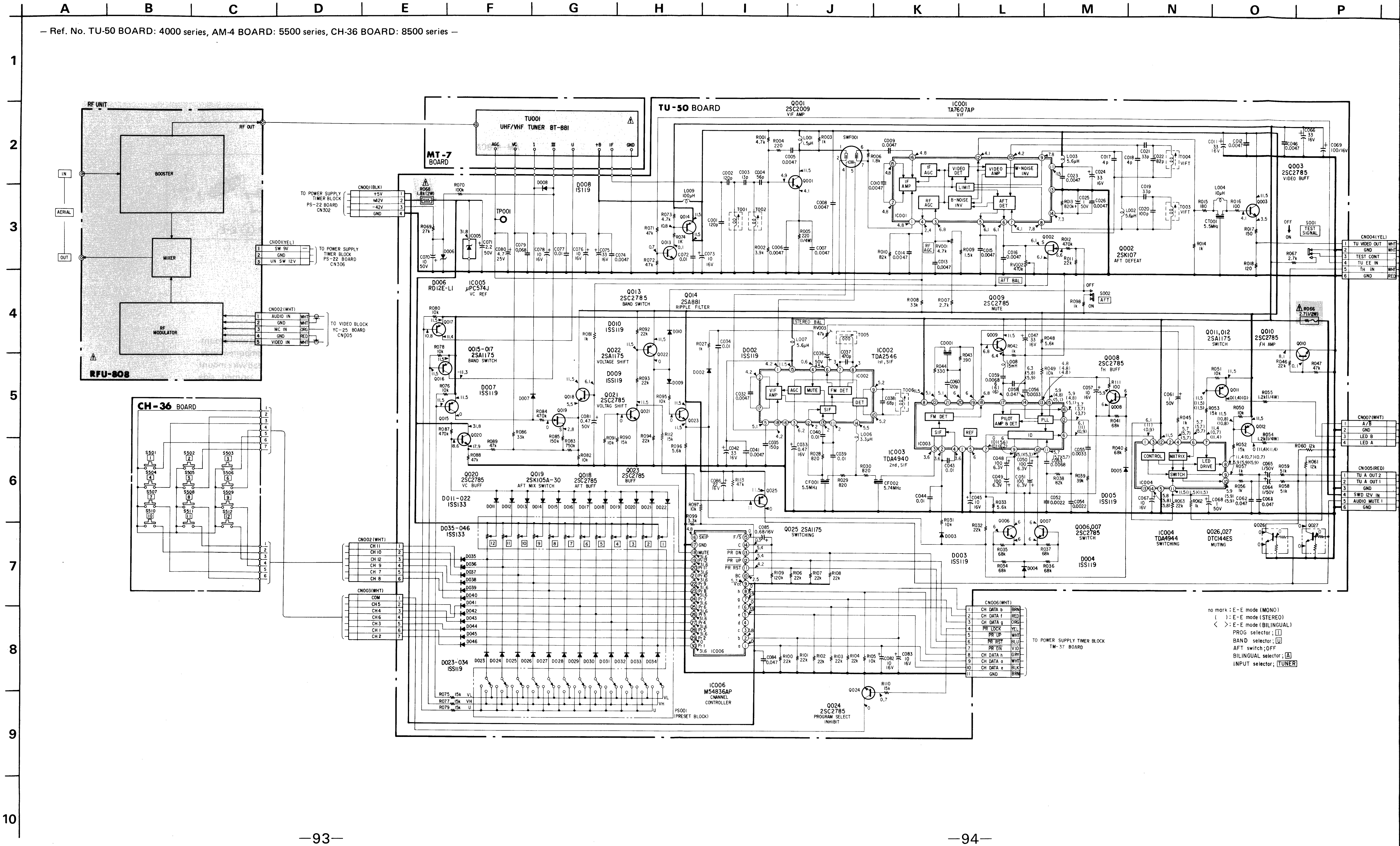
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

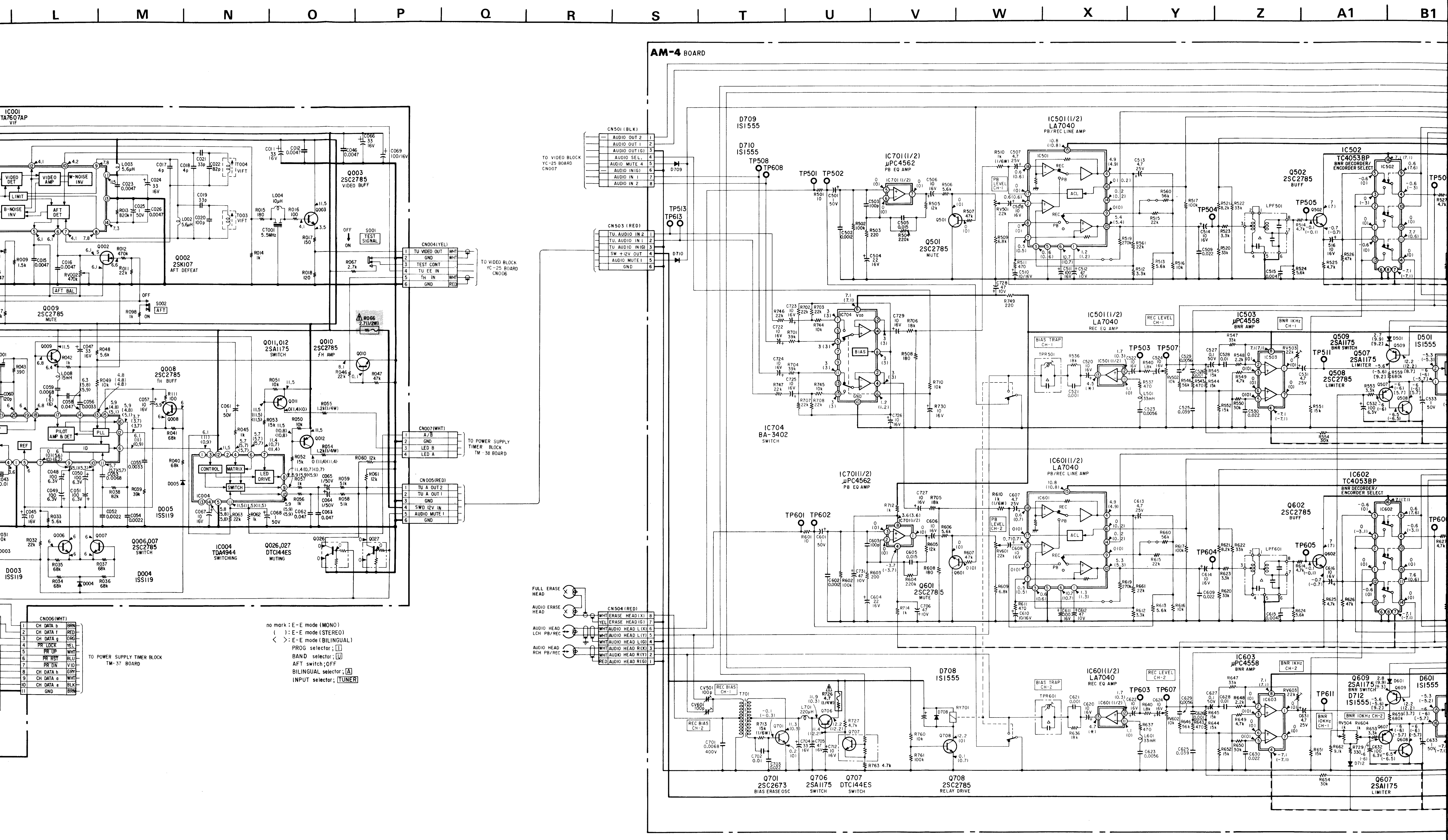
TUNER, AUDIO TUNER, AUDIO (AEP MODEL)

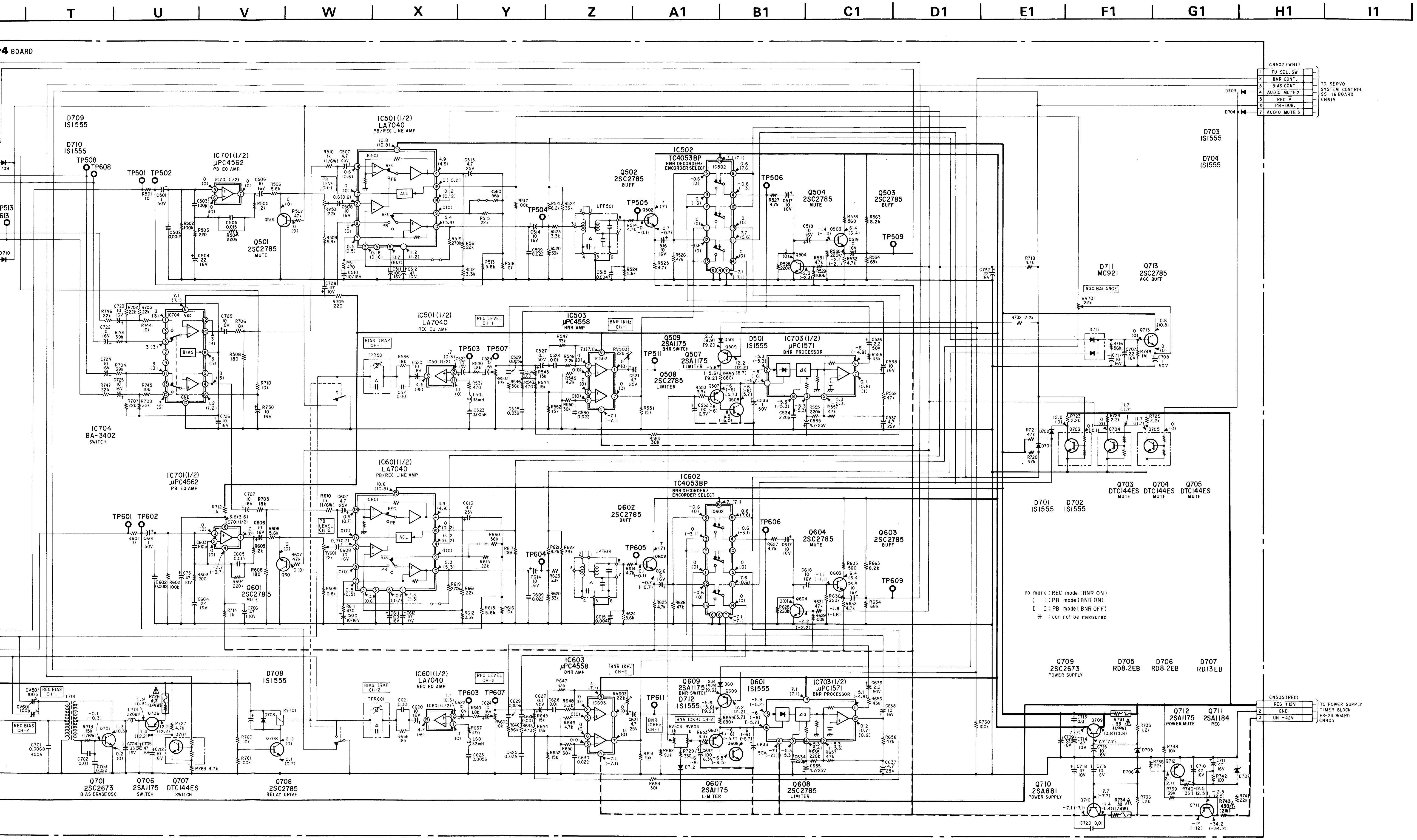
TU-50 (VIF, SIF, AFC, CHANNEL PRESET) **AM-4** (AUDIO RECORD/ PLAY BACK PROCESS) **CH-36** (CHANNEL SWITCH) **MT-7** (INTERMEDIATION)

– Ref. No. TU-50 BOARD: 4000 series, AM-4 BOARD: 5500 series, CH-36 BOARD: 8500 series –


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
1
2
3
4
5
6
7
8
9
10
RF UNIT
RF OUT
BOOSTER
MIXER
RF MODULATOR
IN
AERIAL
OUT
RFU-808
TU001 UHF/VHF TUNER BT-881
AGC
VC
I
III
U
+B
IF
GND
MT-7 BOARD
TU-50 BOARD
CN001(BLK)
+5V
+42V
-42V
GND
TO POWER SUPPLY TIMER BLOCK PS-22 BOARD CN302
CN001(YEL)
SW 9V
GND
UN SW 12V
TO POWER SUPPLY TIMER BLOCK PS-22 BOARD CN306
CN002(WHT)
AUDIO IN
MC IN
VIDEO IN
TO VIDEO BLOCK YC-25 BOARD CN005
Q001 2SC2009 VIF AMP
IC001 TA7607AP VIF
SWF001
IF AGC
VIDEO DET
VIDEO AMP
W-NOISE INV
IF AMP
LIMIT
RF AGC
B-NOISE INV
AFT DET
Q002 2SK107 AFT DEFEAT
Q003 2SC2785 VIDEO BUFF
T004 VIFT
T003 VIFT
TP001
D006 RD12E-L1
IC005 μPC574J VC REF
D008 1SS119
Q013 2SC2785 BAND SWITCH
Q014 2SA881 RIPPLE FILTER
D010 1SS119
Q022 2SA1175 VOLTAGE SHIFT
D009 1SS119
Q021 2SC2785 VOLTAGE SHIFT
Q015-017 2SA1175 BAND SWITCH
D007 1SS119
Q020 2SC2785 VC BUFF
Q019 2SK105A-30 AFT MIX SWITCH
Q018 2SC2785 AFT BUFF
Q023 2SC2785 BUFF
D011-022 1SS133
D035-046 1SS133
D023-034 1SS119
PS001 (PRESET BLOCK)
CH-36 BOARD
S501
S502
S503
S504
S505
S506
S507
S508
S509
S510
S511
S512
CN002(WHT)
CH 11
CH 10
CH 12
CH 9
CH 7
CH 8
CN003(WHT)
COM
CH 5
CH 4
CH 6
CH 3
CH 1
CH 2
IC006 M54836AP CHANNEL CONTROLLER
SKIP
MUTE
PR DN
PR UP
PR RST
Q025 2SA1175 SWITCHING
Q024 2SC2785 PROGRAM SELECT INHIBIT
STEREO BAL
T005
D002 1SS119
IC002 TDA2546 1st SIF
VIF AMP
AGC
MUTE
FM DET
SIF
DET
T006
CF001 5.5MHz
CF002 5.74MHz
IC003 TDA4940 2nd SIF
FM DET
REF
PILOT AMP & DET
PLL
ID
Q009 2SC2785 MUTE
Q008 2SC2785 fH BUFF
Q006,007 2SC2785 SWITCH
D003 1SS119
D004 1SS119
D005 1SS119
Q011,012 2SA1175 SWITCH
Q010 2SC2785 fH AMP
IC004 TDA4944 SWITCHING
CONTROL
MATRIX
LED DRIVE
SWITCH
Q026,027 DTC144ES MUTING
S001 TEST SIGNAL
S002 AFT
AFT BAL
R066 2.7(1/2W)
CN004(YEL)
TU VIDEO OUT
TEST CONT
TU EE IN
TH IN
CN007(WHT)
A/B
LED B
LED A
CN005(RED)
TU A OUT 2
TU A OUT 1
SWD 12V IN
AUDIO MUTE 1
CN006(WHT)
CH DATA b
CH DATA f
CH DATA g
PR LOCK
PR UP
PR RST
PR DN
CH DATA h
CH DATA a
CH DATA e
TO POWER SUPPLY TIMER BLOCK TM-37 BOARD

no mark : E-E mode (MONO)
( ) : E-E mode (STEREO)
〈 〉 : E-E mode (BILINGUAL)
PROG selector; [1]
BAND selector; [U]
AFT switch; OFF
BILINGUAL selector; [A]
INPUT selector; [TUNER]


L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
A1
B1
AM-4 BOARD
IC001 TA7607AP VIF
Q003 2SC2785 VIDEO BUFF
Q002 2SK107 AFT DEFEAT
Q009 2SC2785 MUTE
Q008 2SC2785 fH BUFF
Q011,012 2SA1175 SWITCH
Q010 2SC2785 fH AMP
IC004 TDA4944 SWITCHING
Q026,027 DTC144ES MUTING
Q006,007 2SC2785 SWITCH
D003 ISS119
D004 ISS119
D005 ISS119
CN004(YEL)
TO VIDEO BLOCK YC-25 BOARD CN006
CN007(WHT)
TO POWER SUPPLY TIMER BLOCK TM-38 BOARD
CN005(RED)
CN006(WHT)
TO POWER SUPPLY TIMER BLOCK TM-37 BOARD
no mark : E-E mode (MONO)
( ) : E-E mode (STEREO)
〈 〉 : E-E mode (BILINGUAL)
PROG selector ; 1
BAND selector ; U
AFT switch ; OFF
BILINGUAL selector ; A
INPUT selector ; TUNER
CN501 (BLK)
TO VIDEO BLOCK YC-25 BOARD CN007
CN503 (RED)
CN504 (RED)
FULL ERASE HEAD
AUDIO ERASE HEAD
AUDIO HEAD LCH PB/REC
AUDIO HEAD RCH PB/REC
D709 IS1555
D710 IS1555
IC701(1/2) μPC4562 PB EQ AMP
Q501 2SC2785 MUTE
IC501(1/2) LA7040 PB/REC LINE AMP
IC502 TC4053BP BNR DECORDER/ENCORDER SELECT
Q502 2SC2785 BUFF
IC704 BA-3402 SWITCH
IC501(1/2) LA7040 REC EQ AMP
IC503 μPC4558 BNR AMP
Q509 2SA1175 BNR SWITCH
Q507 2SA1175 LIMITER
Q508 2SC2785 LIMITER
D501 IS1555
IC701(1/2) μPC4562 PB EQ AMP
Q601 2SC2785 MUTE
IC601(1/2) LA7040 PB/REC LINE AMP
IC602 TC4053BP BNR DECORDER/ENCORDER SELECT
Q602 2SC2785 BUFF
D708 IS1555
IC601(1/2) LA7040 REC EQ AMP
IC603 μPC4558 BNR AMP
Q609 2SA1175 BNR SWITCH
D712 IS1555
D601 IS1555
Q607 2SA1175 LIMITER
Q701 2SC2673 BIAS ERASE OSC
Q706 2SA1175 SWITCH
Q707 DTC144ES SWITCH
Q708 2SC2785 RELAY DRIVE

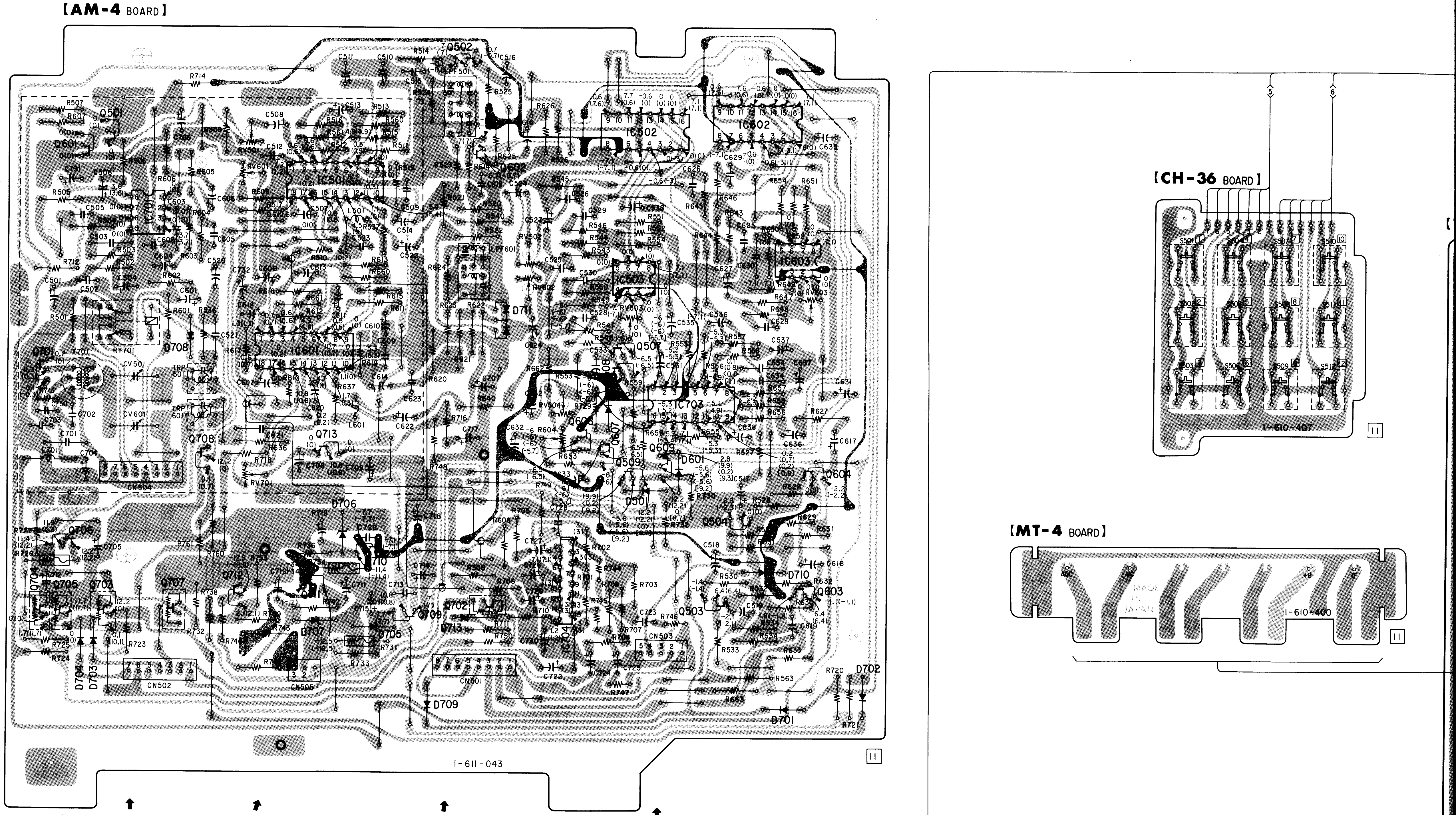

T
U
V
W
X
Y
Z
A1
B1
C1
D1
E1
F1
G1
H1
I1
BOARD
D709 1S1555
D710 1S1555
TP508
TP608
TP501
TP502
IC701(1/2) µPC4562 PB EQ AMP
Q501 2SC2785 MUTE
IC501(1/2) LA7040 PB/REC LINE AMP
PB LEVEL CH-1
ACL
REC
PB
IC502 TC4053BP BNR DECORDER/ ENCORDER SELECT
Q502 2SC2785 BUFF
TP504
LPF501
TP505
TP506
Q504 2SC2785 MUTE
Q503 2SC2785 BUFF
TP509
CN502 (WHT)
1 TU SEL. SW
2 BNR CONT.
3 BIAS CONT.
4 AUDIO MUTE 2
5 REC P.
6 PB+DUB.
7 AUDIO MUTE 3
TO SERVO SYSTEM CONTROL SS-16 BOARD CN615
D703 1S1555
D704 1S1555
IC704 BA-3402 SWITCH
BIAS
IC501(1/2) LA7040 REC EQ AMP
REC LEVEL CH-1
BIAS TRAP CH-1
TP503
TP507
IC503 µPC4558 BNR AMP
BNR 1KHz CH-1
TP511
Q509 2SA1175 BNR SWITCH
Q507 2SA1175 LIMITER
Q508 2SC2785 LIMITER
D501 1S1555
IC703(1/2) µPC1571 BNR PROCESSOR
D711 MC921
Q713 2SC2785 AGC BUFF
AGC BALANCE
RV701 22k
Q703 DTC144ES MUTE
Q704 DTC144ES MUTE
Q705 DTC144ES MUTE
D701 1S1555
D702 1S1555
IC701(1/2) µPC4562 PB EQ AMP
TP601
TP602
Q601 2SC2785 MUTE
IC601(1/2) LA7040 PB/REC LINE AMP.
PB LEVEL CH-2
IC602 TC4053BP BNR DECORDER/ ENCORDER SELECT
Q602 2SC2785 BUFF
TP604
LPF601
TP605
TP606
Q604 2SC2785 MUTE
Q603 2SC2785 BUFF
TP609
no mark : REC mode (BNR ON)
( ) : PB mode (BNR ON)
[ ] : PB mode (BNR OFF)
* : can not be measured
Q709 2SC2673 POWER SUPPLY
D705 RD8.2EB
D706 RD8.2EB
D707 RD13EB
REC BIAS CH-1
REC BIAS CH-2
T701
D708 1S1555
RY701
IC601(1/2) LA7040 REC EQ AMP
REC LEVEL CH-2
BIAS TRAP CH-2
TP603
TP607
IC603 µPC4558 BNR AMP
BNR 1KHz CH-2
TP611
BNR 10KHz CH-1
BNR 10KHz CH-2
Q609 2SA1175 BNR SWITCH
D712 1S1555
D601 1S1555
IC703(1/2) µPC1571 BNR PROCESSOR
Q607 2SA1175 LIMITER
Q608 2SC2785 LIMITER
CN505 (RED)
1 REG +12V
2 GND
3 UN -42V
TO POWER SUPPLY TIMER BLOCK PS-23 BOARD CN405
Q712 2SA1175 POWER MUTE
Q711 2SA1184 REG
Q710 2SA881 POWER SUPPLY
Q701 2SC2673 BIAS ERASE OSC
Q706 2SA1175 SWITCH
Q707 DTC144ES SWITCH
Q708 2SC2785 RELAY DRIVE

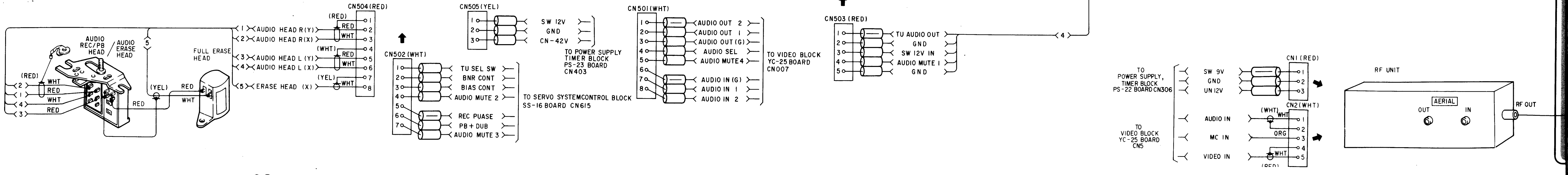
TU-39 (VIF, SIF, AFC, CHANNEL PRESET) **AM-4** (AUDIO RECORD/ PLAY BACK PROCESS) **CH-36** (CHANNEL SWITCH) **MT-4** (INTERMEDIATION)

A B C D E F G H I J K L M N O P

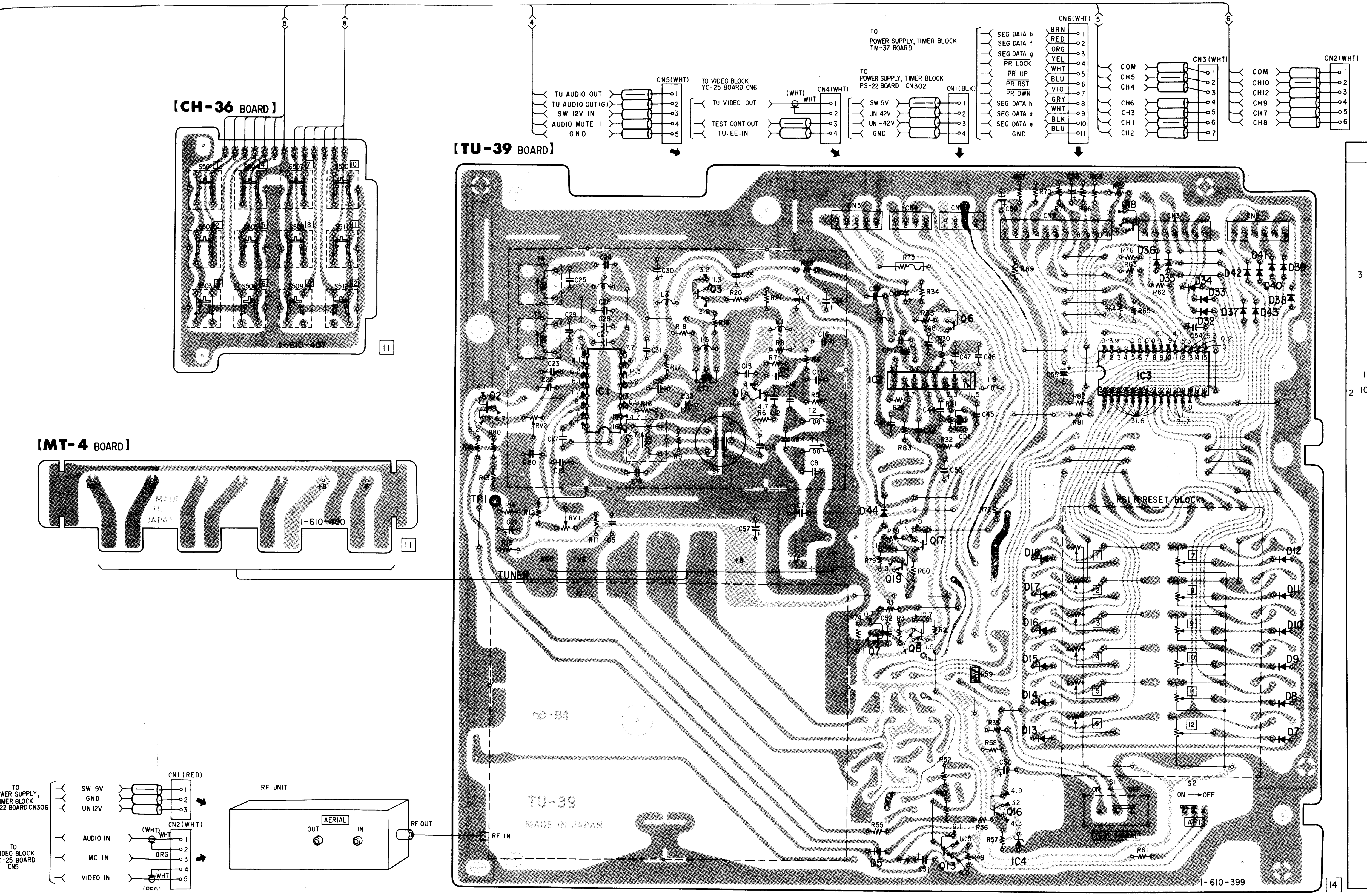
– Ref. No. TU-39 BOARD: 4000 series, AM-4 BOARD: 6000 series, CH-36 BOARD: 8500 series –

TP, ADJ	D	IC, Q
		502 IC602 IC502
RV501 RV601		602 501 601 IC501
RV502 RV602		IC701 IC603 IC503
RV603 RV503	711	
	708	507 IC601, 508
CV501		701
CV601 RV504		IC703
RV701	712 601 501	608, 609 708, 713, 607 509, 604
	706	504
	710	706 710 603 503
		712 IC704 704, 711, 705, 709
	704, 707 703, 705	703 707
	701 702 709	


【AM-4 BOARD】
IC501
IC502
IC503
IC601
IC602
IC603
IC701
IC703
IC704
CN501
CN502
CN503
CN504
CN505
1-611-043
【CH-36 BOARD】
1-610-407
【MT-4 BOARD】
MADE IN JAPAN
1-610-400
5
6

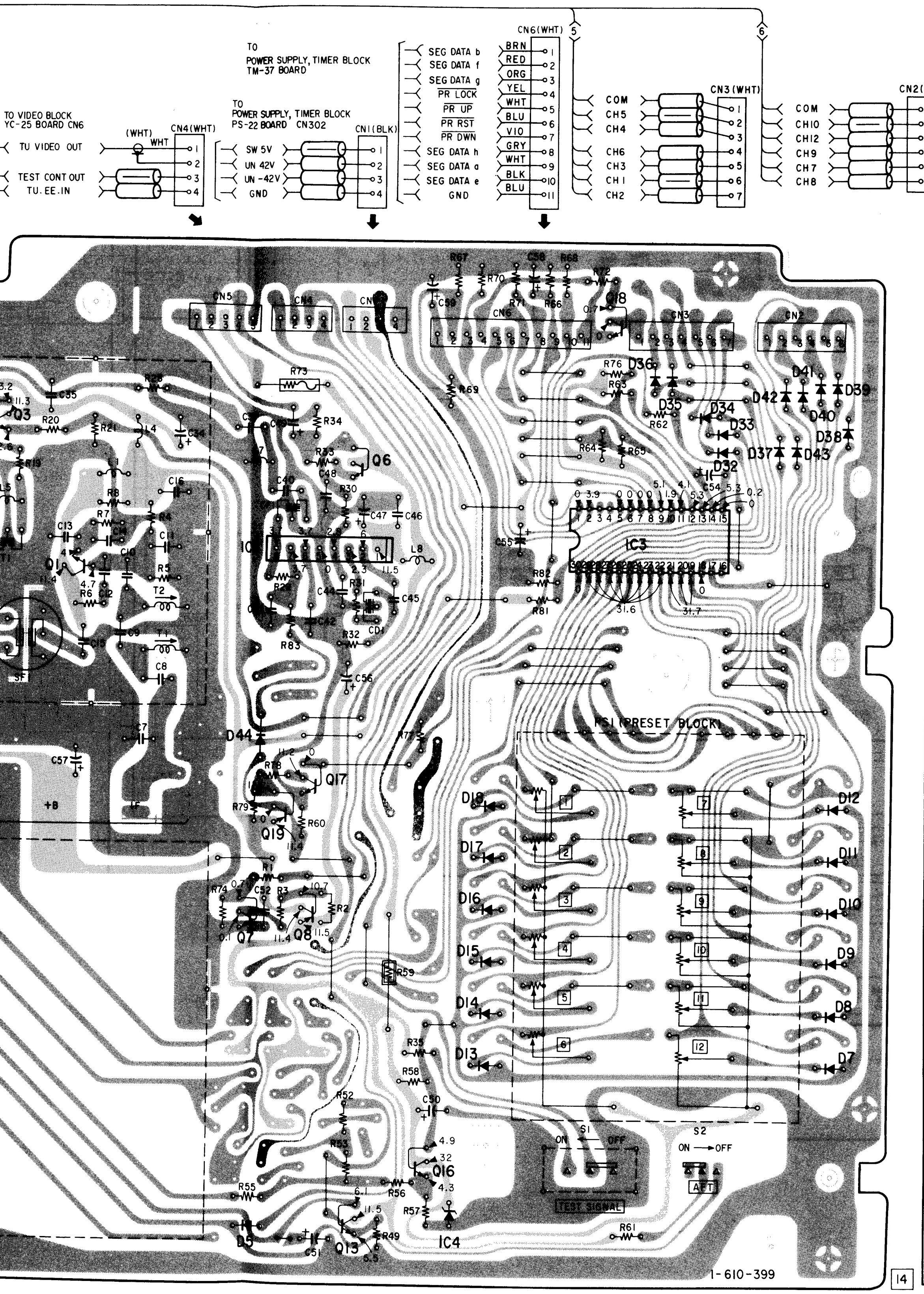

AUDIO REC/PB HEAD
AUDIO ERASE HEAD
FULL ERASE HEAD
(RED)
WHT
RED
WHT
RED
(YEL)
RED
WHT
RED
CN504 (RED)
1 AUDIO HEAD R (Y)
2 AUDIO HEAD R (X)
3 AUDIO HEAD L (Y)
4 AUDIO HEAD L (X)
5 ERASE HEAD (X)
(RED) RED WHT
(WHT) RED WHT
(YEL) WHT
CN505 (YEL)
SW 12V
GND
CN-42V
TO POWER SUPPLY
TIMER BLOCK
PS-23 BOARD
CN403
CN502 (WHT)
TU SEL SW
BNR CONT
BIAS CONT
AUDIO MUTE 2
REC PUASE
PB + DUB
AUDIO MUTE 3
TO SERVO SYSTEMCONTROL BLOCK
SS-16 BOARD CN615
CN501 (WHT)
AUDIO OUT 2
AUDIO OUT 1
AUDIO OUT (G)
AUDIO SEL
AUDIO MUTE4
AUDIO IN (G)
AUDIO IN 1
AUDIO IN 2
TO VIDEO BLOCK
YC-25 BOARD
CN007
CN503 (RED)
TU AUDIO OUT
GND
SW 12V IN
AUDIO MUTE 1
GND
4
TO POWER SUPPLY, TIMER BLOCK PS-22 BOARD CN306
SW 9V
GND
UN 12V
CN1 (RED)
TO VIDEO BLOCK YC-25 BOARD CN5
AUDIO IN
MC IN
VIDEO IN
CN2 (WHT)
(WHT) WHT
ORG
WHT
(RED)
RF UNIT
AERIAL
OUT
IN
RF OUT

M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A1 | B1 | C1


[CH-36 BOARD]
S501 S502 S503 S504 S505 S506 S507 S508 S509 S510 S511 S512
1-610-407
11
[MT-4 BOARD]
MADE IN JAPAN
1-610-400
11
[TU-39 BOARD]
TU AUDIO OUT
TU AUDIO OUT (G)
SW 12V IN
AUDIO MUTE 1
GND
CN5(WHT)
TO VIDEO BLOCK YC-25 BOARD CN6
TU VIDEO OUT
TEST CONT OUT
TU. EE. IN
(WHT) WHT
CN4(WHT)
TO POWER SUPPLY, TIMER BLOCK PS-22 BOARD CN302
SW 5V
UN 42V
UN -42V
GND
CN1(BLK)
TO POWER SUPPLY, TIMER BLOCK TM-37 BOARD
SEG DATA b
SEG DATA f
SEG DATA g
PR LOCK
PR UP
PR RST
PR DWN
SEG DATA h
SEG DATA a
SEG DATA e
GND
BRN RED ORG YEL WHT BLU VIO GRY WHT BLK BLU
CN6(WHT)
COM CH5 CH4 CH6 CH3 CH1 CH2
CN3(WHT)
COM CH10 CH12 CH9 CH7 CH8
CN2(WHT)
4 5 6
IC1 IC2 IC3 IC4
Q1 Q2 Q3 Q6 Q7 Q8 Q13 Q16 Q17 Q18 Q19
T1 T2 T3 T4 T5 CT1 CF1 CD1 L1 L2 L3 L4 L5 L8
RV1 RV2 TP1
D5 D7 D8 D9 D10 D11 D12 D13 D14 D15 D16 D17 D18 D32 D33 D34 D35 D36 D37 D38 D39 D40 D41 D42 D43 D44
RS1 (PRESET BLOCK)
S1 ON OFF TEST SIGNAL
S2 ON → OFF AFT
TUNER
AGC VC +B IF
TU-39 MADE IN JAPAN
B4
1-610-399
14
TO POWER SUPPLY, TIMER BLOCK PS-22 BOARD CN306
SW 9V
GND
UN 12V
CN1(RED)
TO VIDEO BLOCK YC-25 BOARD CN5
AUDIO IN
MC IN
VIDEO IN
(WHT) WHT ORG WHT (RED)
CN2(WHT)
RF UNIT
AERIAL
OUT IN
RF OUT
RF IN

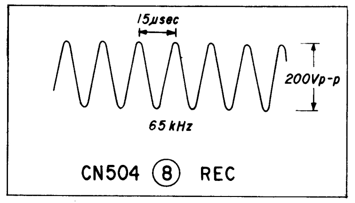
IC · Q	D	TP · RV
18		
3	36,35 42,41 40,39 34 33 32 37 43 38	
6		
1 IC3 IC2 2 IC1		
		RV2
	44	1 RV1
17		
19	18 12	
	17 11	
7,8	16 10	
	15 9	
	14 8	
	10,13 7	
14		
16		
13 IC4	5	

S | T | U | V | W | X | Y | Z | A1 | B1 | C1 | D1 | E1 | F1 | G1 | H1 | I1

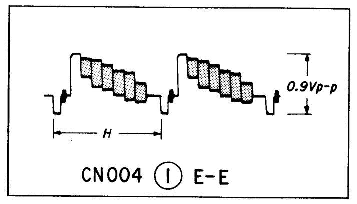

TO VIDEO BLOCK
YC-25 BOARD CN6
TU VIDEO OUT
TEST CONT OUT
TU. EE. IN
(WHT)
WHT
CN4(WHT)
TO
POWER SUPPLY, TIMER BLOCK
PS-22 BOARD CN302
SW 5V
UN 42V
UN -42V
GND
CN1(BLK)
TO
POWER SUPPLY, TIMER BLOCK
TM-37 BOARD
SEG DATA b
SEG DATA f
SEG DATA g
PR LOCK
PR UP
PR RST
PR DWN
SEG DATA h
SEG DATA a
SEG DATA e
GND
CN6(WHT)
BRN
RED
ORG
YEL
WHT
BLU
VIO
GRY
WHT
BLK
BLU
5
6
COM
CH5
CH4
CH6
CH3
CH1
CH2
CN3(WHT)
COM
CH10
CH12
CH9
CH7
CH8
CN2(WHT)
IC3
RS1 (PRESET BLOCK)
S1
ON OFF
S2
ON → OFF
AFT
TEST SIGNAL
IC4
Q16
Q13
Q17
Q19
Q7
Q8
Q6
Q18
+B
1-610-399
14

IC · Q	D	TP · RV
18		
3	36,35 42,41 40,39 34 33 32 37 43 38	
6		
1 IC3 2 IC1 IC2		
		RV2
	44	RV1
17 19	18 12	
	17 11	
7,8	16 10	
	15 9	
	14 8	
	10,13 7	
14		
16		
13 IC4	5	

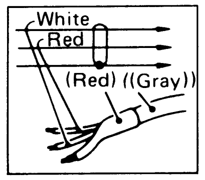
AM-4 BOARD


15μsec
200Vp-p
65kHz
CN504 ⑧ REC

TU-39 BOARD


0.9Vp-p
H
CN004 ① E-E

- Color code of sleeving over the end of the jacket.


White
Red
(Red) ((Gray))

- ○— indicates a lead wire mounted on the component side.
- ●— indicates a lead wire mounted on the printed side.
- ▨ Soldering side
- ░ B + pattern
- ■ B − pattern

- All resistors are in ohms, 1/6W unless otherwise noted.
- All capacitors are in μF (p:pF) unless otherwise noted. 50V or less are not indicated except for electrolytic capacitors.
- All variable and semi-fixed resistors have characteristic curve B, unless otherwise noted.
- ⊡ : Nonflammable resistor
- —⋀⋁— : Fusible resistor
- △ : Internal component
- —— : B + bus.
- - - - : B − bus.
- The voltage value is a reference value between the grounding when the color bar signal is received from a color bar generator.

The voltage value is measured using a digital tester (10MΩ).

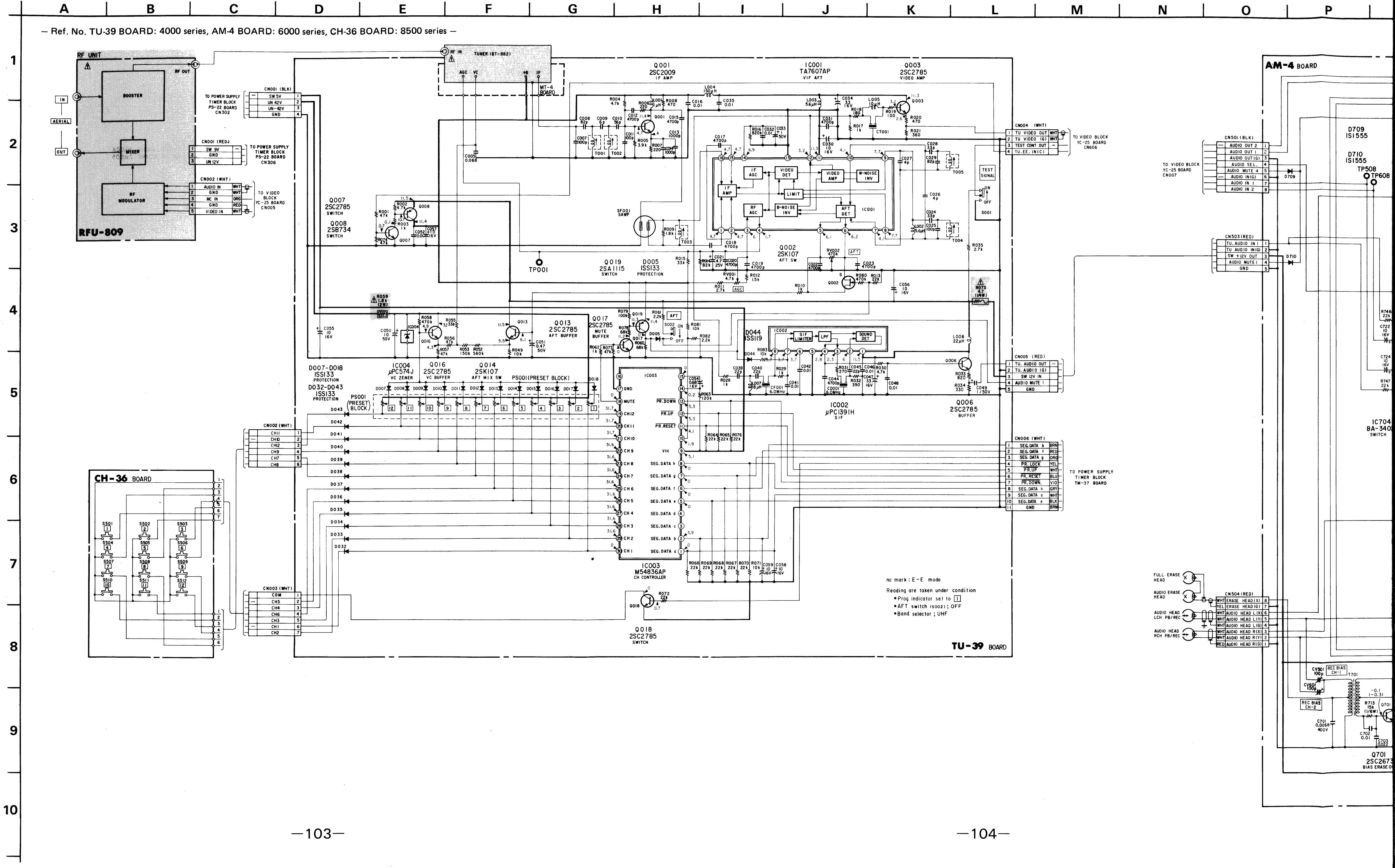
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

TUNER, AUDIO   TUNER, AUDIO   (UK MODEL)

TU-39 (VIF, SIF, AFC, CHANNEL PRESET) **AM-4** (AUDIO RECORD/ PLAY BACK PROCESS) **CH-36** (CHANNEL SWITCH) **MT-4** (INTERMEDIATION)

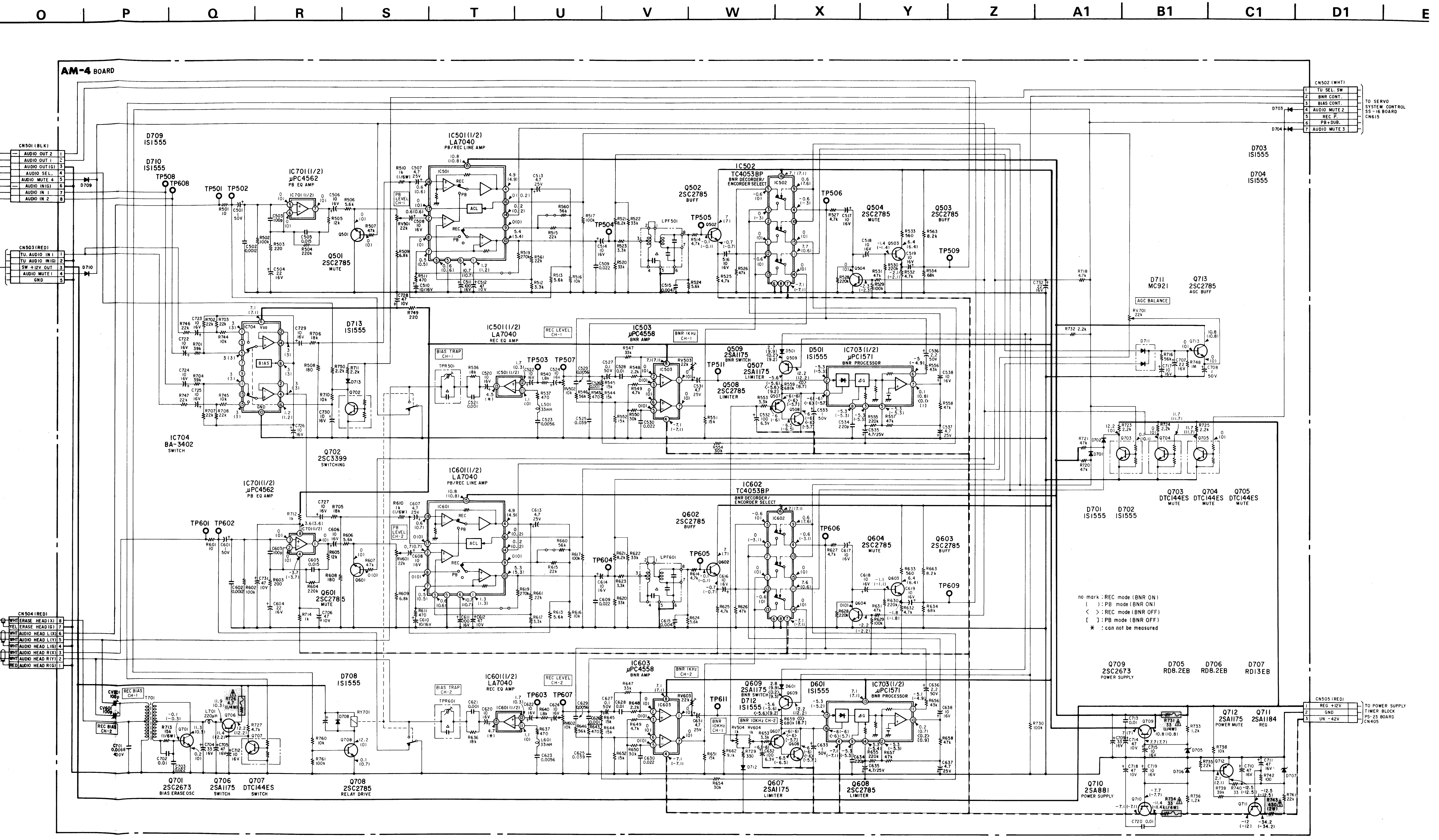
– Ref. No. TU-39 BOARD: 4000 series, AM-4 BOARD: 6000 series, CH-36 BOARD: 8500 series –



A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
1
2
3
4
5
6
7
8
9
10
RF UNIT
BOOSTER
MIXER
RF MODULATOR
RF OUT
IN
AERIAL
OUT
RFU-809
TUNER (BT-862)
RF IN
AGC
VC
HB
IF
MT-4 BOARD
CN001 (BLK)
SW 5V
UN 42V
UN -42V
GND
TO POWER SUPPLY TIMER BLOCK PS-22 BOARD CN302
CN001 (RED)
SW 9V
GND
UN 12V
TO POWER SUPPLY TIMER BLOCK PS-22 BOARD CN306
CN002 (WHT)
AUDIO IN
GND
MC IN
GND
VIDEO IN
TO VIDEO BLOCK YC-25 BOARD CN005
Q001 2SC2009 IF AMP
IC001 TA7607AP VIF AFT
Q003 2SC2785 VIDEO AMP
IF AGC
VIDEO DET
VIDEO AMP
W-NOISE INV
IF AMP
LIMIT
RF AGC
B-NOISE INV
AFT DET
SF001 SAWF
TP001
Q007 2SC2785 SWITCH
Q008 2SB734 SWITCH
Q019 2SA1115 SWITCH
D005 1SS133 PROTECTION
Q002 2SK107 AFT SW
CN004 (WHT)
TU VIDEO OUT
TU VIDEO (G)
TEST CONT OUT
TU.EE.IN(C)
TO VIDEO BLOCK YC-25 BOARD CN606
TEST SIGNAL
S001
R059 1.8k (2W)
R073 47 (1/4W)
Q013 2SC2785 AFT BUFFER
Q017 2SC2785 MUTE BUFFER
D044 1SS119
IC002
SIF LIMITER
LPF
SOUND DET
IC002 µPC1391H SIF
Q006 2SC2785 BUFFER
CN005 (RED)
TU. AUDIO OUT
TU. AUDIO (G)
SW 12V IN
AUDIO MUTE I
GND
IC004 µPC574J VC ZENER
Q016 2SC2785 VC BUFFER
Q014 2SK107 AFT MIX SW
PS001 (PRESET BLOCK)
D007-D018 1SS133 PROTECTION
D032-D043 1SS133 PROTECTION
IC003 M54836AP CH CONTROLLER
MUTE
CH12
CH11
CH10
CH9
CH8
CH7
CH6
CH5
CH4
CH3
CH2
CH1
PR.DOWN
PR.UP
PR.RESET
Vcc
SEG. DATA h
SEG. DATA g
SEG. DATA f
SEG. DATA e
SEG. DATA d
SEG. DATA c
SEG. DATA b
SEG. DATA a
CN006 (WHT)
PR. LOCK
PR. UP
PR. RESET
PR. DOWN
TO POWER SUPPLY TIMER BLOCK TM-37 BOARD
CN002 (WHT)
CN003 (WHT)
COM
CH-36 BOARD
S501
S502
S503
S504
S505
S506
S507
S508
S509
S510
S511
S512
Q018 2SC2785 SWITCH
TU-39 BOARD
AM-4 BOARD
CN501 (BLK)
AUDIO OUT 2
AUDIO OUT 1
AUDIO OUT (G)
AUDIO SEL.
AUDIO MUTE 4
AUDIO IN (G)
AUDIO IN 1
AUDIO IN 2
TO VIDEO BLOCK YC-25 BOARD CN007
D709 1S1555
D710 1S1555
TP508
TP608
CN503 (RED)
TU. AUDIO IN 1
TU AUDIO IN (G)
SW +12V OUT
AUDIO MUTE 1
GND
IC704 BA-3402 SWITCH
FULL ERASE HEAD
AUDIO ERASE HEAD
AUDIO HEAD LCH PB/REC
AUDIO HEAD RCH PB/REC
CN504 (RED)
ERASE HEAD (X)
ERASE HEAD (G)
AUDIO HEAD L (X)
AUDIO HEAD L (Y)
AUDIO HEAD L (G)
AUDIO HEAD R (X)
AUDIO HEAD R (Y)
AUDIO HEAD R (G)
REC BIAS CH-1
REC BIAS CH-2
T701
Q701 2SC2673 BIAS ERASE OSC

no mark : E-E mode
Reading are taken under condition
•Prog indicator set to 1
•AFT switch (S002) ; OFF
•Band selector ; UHF

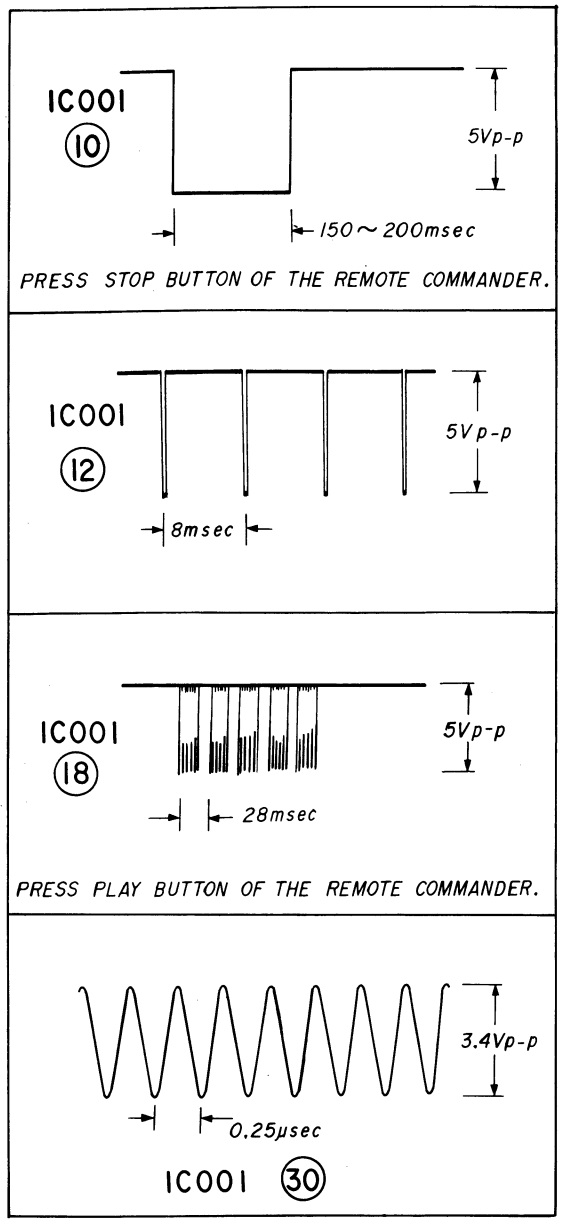
TUNER, AUDIO   TUNER, AUDIO   (UK MODEL)


O
P
Q
R
S
T
U
V
W
X
Y
Z
A1
B1
C1
D1
E
AM-4 BOARD
CN501 (BLK)
1 AUDIO OUT 2
2 AUDIO OUT 1
3 AUDIO OUT (G)
4 AUDIO SEL.
5 AUDIO MUTE 4
6 AUDIO IN (G)
7 AUDIO IN 1
8 AUDIO IN 2
CN503 (RED)
1 TU. AUDIO IN 1
2 TU AUDIO IN (G)
3 SW +12V OUT
4 AUDIO MUTE 1
5 GND
CN504 (RED)
WHT ERASE HEAD (X) 8
YEL ERASE HEAD (G) 7
WHT AUDIO HEAD L (X) 6
WHT AUDIO HEAD L (Y) 5
WHT AUDIO HEAD L (G) 4
WHT AUDIO HEAD R (X) 3
WHT AUDIO HEAD R (Y) 2
RED AUDIO HEAD R (G) 1
CN502 (WHT)
1 TU SEL. SW
2 BNR CONT.
3 BIAS CONT.
4 AUDIO MUTE 2
5 REC P̄.
6 PB + DUB.
7 AUDIO MUTE 3
TO SERVO SYSTEM CONTROL SS-16 BOARD CN615
CN505 (RED)
1 REG +12V
2 GND
3 UN -42V
TO POWER SUPPLY TIMER BLOCK PS-23 BOARD CN405
D709 IS1555
D710 IS1555
TP508
TP608
TP501
TP502
IC701 (1/2) μPC4562 PB EQ AMP
Q501 2SC2785 MUTE
IC501 (1/2) LA7040 PB/REC LINE AMP
REC
PB
ACL
PB LEVEL CH-1
TP504
LPF501
Q502 2SC2785 BUFF
TP505
IC502 TC4053BP BNR DECORDER/ENCORDER SELECT
TP506
Q504 2SC2785 MUTE
Q503 2SC2785 BUFF
TP509
D703 IS1555
D704 IS1555
D711 MC921
Q713 2SC2785 AGC BUFF
AGC BALANCE
RV701 22k
IC704 BA-3402 SWITCH
BIAS
D713 IS1555
Q702 2SC3399 SWITCHING
IC501 (1/2) LA7040 REC EQ AMP
BIAS TRAP CH-1
TPR501
TP503
TP507
REC LEVEL CH-1
IC503 μPC4558 BNR AMP
BNR 1KHz CH-1
TP511
Q509 2SA1175 BNR SWITCH
Q507 2SA1175 LIMITER
Q508 2SC2785 LIMITER
D501 IS1555
IC703 (1/2) μPC1571 BNR PROCESSOR
Q703 DTC144ES MUTE
Q704 DTC144ES MUTE
Q705 DTC144ES MUTE
D701 IS1555
D702 IS1555
IC701 (1/2) μPC4562 PB EQ AMP
TP601
TP602
Q601 2SC2785 MUTE
IC601 (1/2) LA7040 PB/REC LINE AMP
PB LEVEL CH-2
TP604
LPF601
Q602 2SC2785 BUFF
TP605
IC602 TC4053BP BNR DECORDER/ENCORDER SELECT
TP606
Q604 2SC2785 MUTE
Q603 2SC2785 BUFF
TP609
no mark : REC mode (BNR ON)
( ) : PB mode (BNR ON)
< > : REC mode (BNR OFF)
[ ] : PB mode (BNR OFF)
* : can not be measured
D708 IS1555
REC BIAS CH-1
REC BIAS CH-2
CV501 100p
CV601 100p
T701
L701 220μH
RY701
IC601 (1/2) LA7040 REC EQ AMP
BIAS TRAP CH-2
TPR601
TP603
TP607
REC LEVEL CH-2
IC603 μPC4558 BNR AMP
BNR 1KHz CH-2
TP611
BNR 10KHz CH-1
BNR 10KHz CH-2
Q609 2SA1175 BNR SWITCH
D712 IS1555
D601 IS1555
IC703 (1/2) μPC1571 BNR PROCESSOR
Q709 2SC2673 POWER SUPPLY
D705 RD8.2EB
D706 RD8.2EB
D707 RD13EB
Q712 2SA1175 POWER MUTE
Q711 2SA1184 REG
Q701 2SC2673 BIAS ERASE OSC
Q706 2SA1175 SWITCH
Q707 DTC144ES SWITCH
Q708 2SC2785 RELAY DRIVE
Q607 2SA1175 LIMITER
Q608 2SC2785 LIMITER
Q710 2SA881 POWER SUPPLY

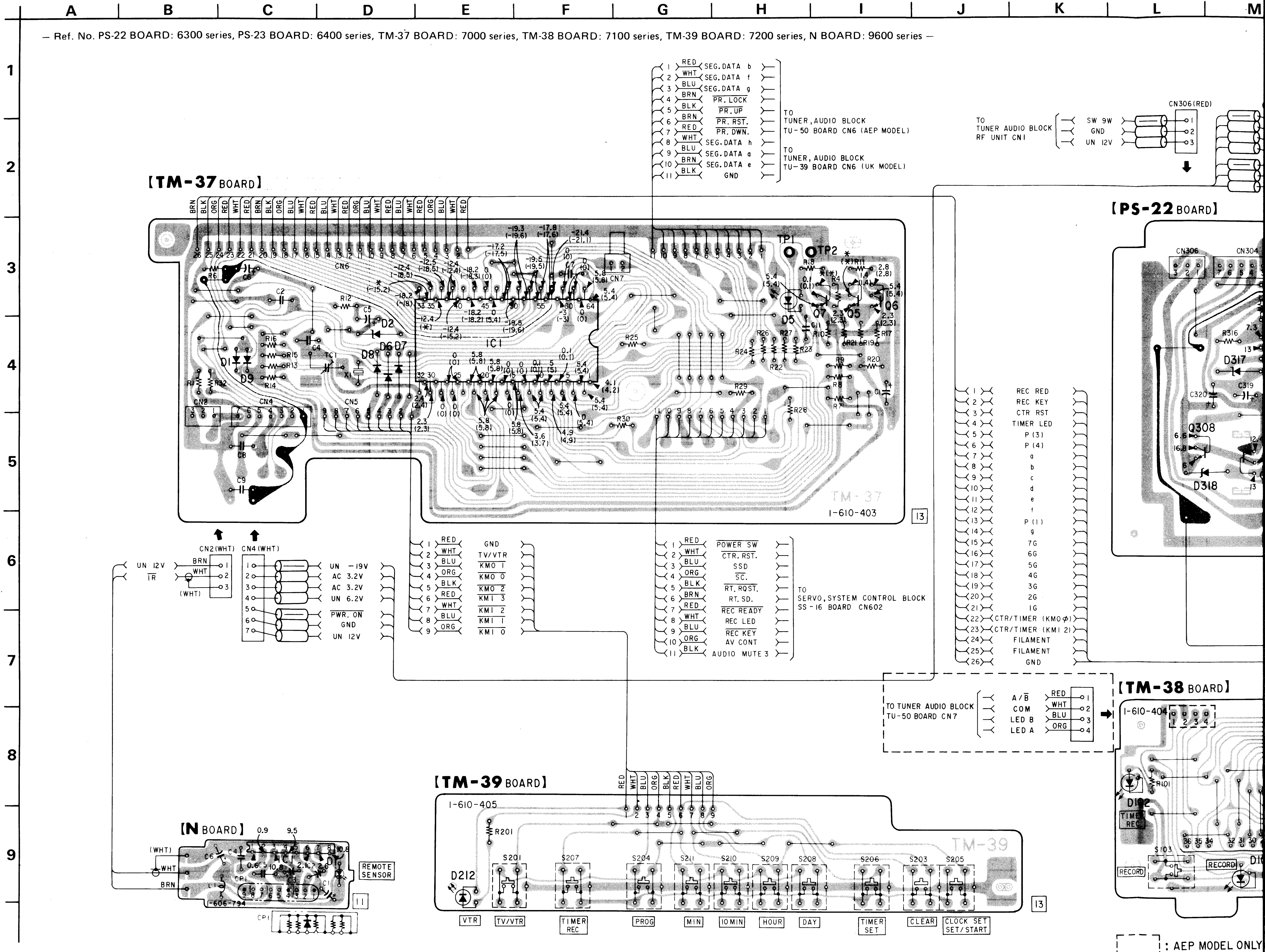
POWER SUPPLY, TIMER POWER SUPPLY, TIMER

PS-22 (POWER SUPPLY REGULATOR) **PS-23** (POWER SUPPLY REGULATOR) **TM-37** (TIMER CONTROL) **TM-38** (TIMER INDICATOR REC RESET TIMER COUNTER SWITCH) **TM-39** (TIMER PRESET SWITCH) **N** (REMOTE CONTROL SIGNAL SENSOR)

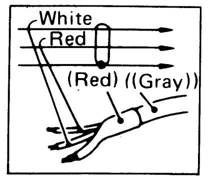
TM-37 BOARD



– Ref. No. PS-22 BOARD: 6300 series, PS-23 BOARD: 6400 series, TM-37 BOARD: 7000 series, TM-38 BOARD: 7100 series, TM-39 BOARD: 7200 series, N BOARD: 9600 series –



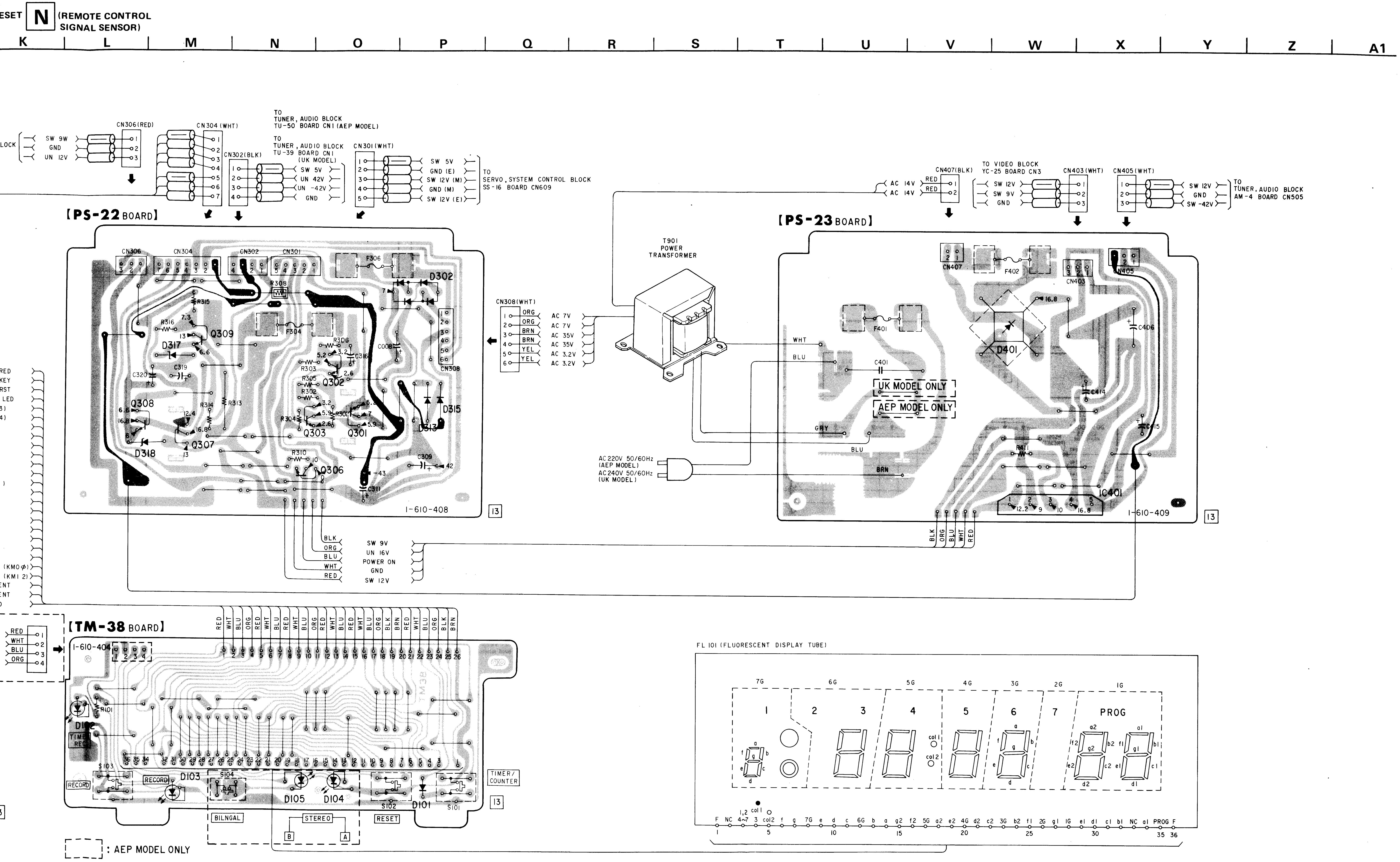
A B C D E F G H I J K L M
1 2 3 4 5 6 7 8 9
[TM-37 BOARD]
SEG.DATA b
SEG.DATA f
SEG.DATA g
PR.LOCK
PR.UP
PR.RST.
PR.DWN.
SEG.DATA h
SEG.DATA a
SEG.DATA e
GND
TO TUNER, AUDIO BLOCK TU-50 BOARD CN6 (AEP MODEL)
TO TUNER, AUDIO BLOCK TU-39 BOARD CN6 (UK MODEL)
TO TUNER AUDIO BLOCK RF UNIT CN1
SW 9V
GND
UN 12V
CN306 (RED)
[PS-22 BOARD]
CN306
CN304
IC1
CN6
CN7
CN5
CN4
CN8
TP1
TP2
1-610-403
13
CN2 (WHT)
CN4 (WHT)
UN 12V
IR
UN -19V
AC 3.2V
AC 3.2V
UN 6.2V
PWR. ON
GND
UN 12V
GND
TV/VTR
KMO 1
KMO 0
KMO 2
KMI 3
KMI 2
KMI 1
KMI 0
POWER SW
CTR. RST.
SSD
SC.
RT. RQST.
RT. SD.
REC READY
REC LED
REC KEY
AV CONT
AUDIO MUTE 3
TO SERVO, SYSTEM CONTROL BLOCK SS-16 BOARD CN602
REC RED
REC KEY
CTR RST
TIMER LED
P (3)
P (4)
a
b
c
d
e
f
P (1)
g
7G
6G
5G
4G
3G
2G
1G
CTR/TIMER (KMO 0)
CTR/TIMER (KMI 2)
FILAMENT
FILAMENT
GND
TO TUNER AUDIO BLOCK TU-50 BOARD CN7
A/B
COM
LED B
LED A
[TM-38 BOARD]
1-610-404
D101
R101
TIMER REC
S103
RECORD
RECORD
[TM-39 BOARD]
1-610-405
R201
D212
S201 S207 S204 S211 S210 S209 S208 S206 S203 S205
VTR
TV/VTR
TIMER REC
PROG
MIN
10MIN
HOUR
DAY
TIMER SET
CLEAR
CLOCK SET SET/START
[N BOARD]
REMOTE SENSOR
1-606-794
CP1
11
AEP MODEL ONLY



White
Red
(Red) ((Gray))

- Color code of sleeving over the end of the jacket.

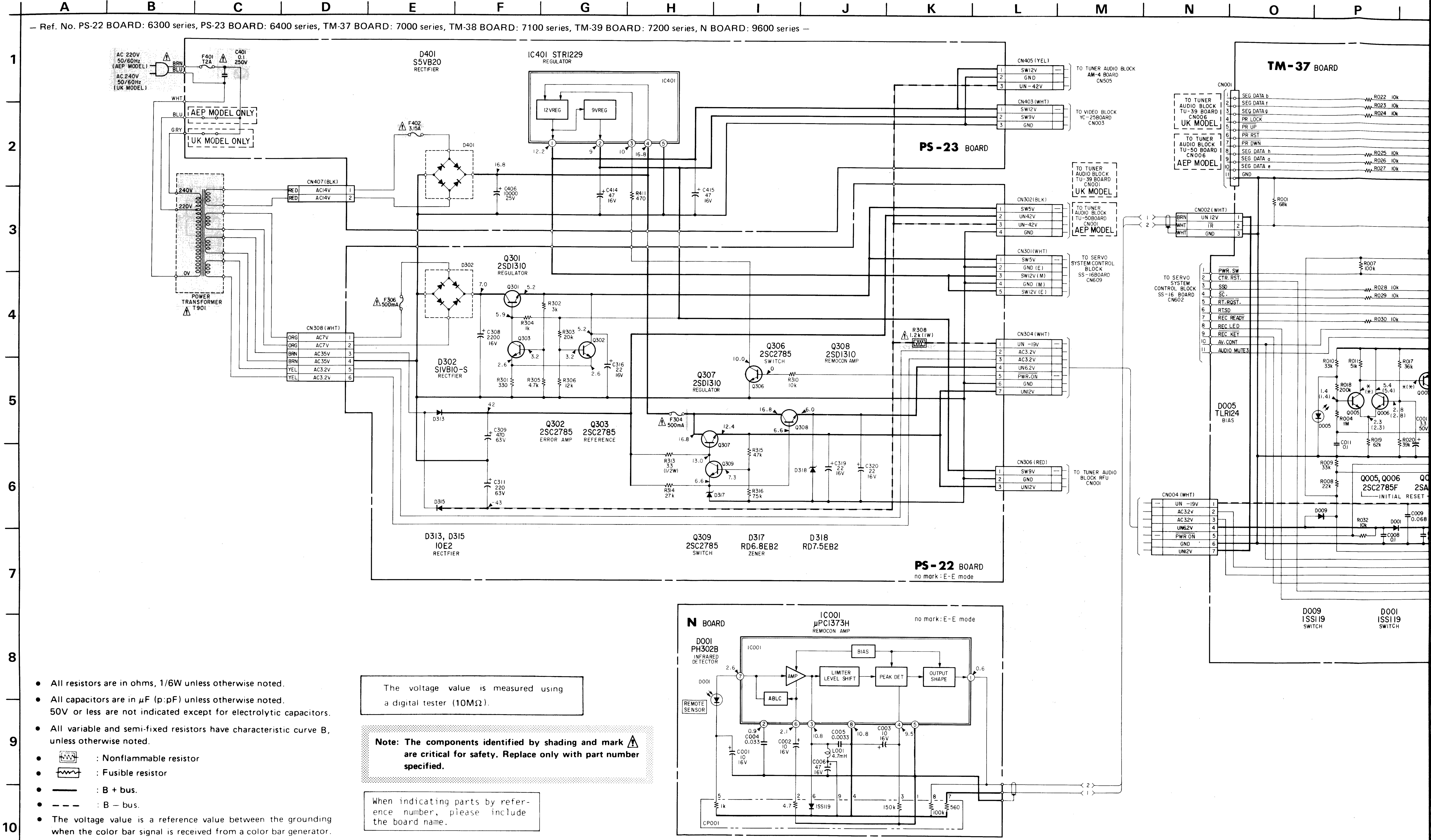
- ○— indicates a lead wire mounted on the component side.
- ●— indicates a lead wire mounted on the printed side.
- ▨ Soldering side
- ▨ B + pattern
- ■ B – pattern


ESET
N
(REMOTE CONTROL SIGNAL SENSOR)
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
A1
LOCK
SW 9W
GND
UN 12V
CN306(RED)
CN304(WHT)
CN302(BLK)
TO TUNER, AUDIO BLOCK TU-50 BOARD CN1 (AEP MODEL)
TO TUNER, AUDIO BLOCK TU-39 BOARD CN1 (UK MODEL)
SW 5V
UN 42V
UN -42V
GND
CN301(WHT)
SW 5V
GND (E)
SW 12V (M)
GND (M)
SW 12V (E)
TO SERVO, SYSTEM CONTROL BLOCK SS-16 BOARD CN609
【PS-22 BOARD】
CN306
CN304
CN302
CN301
F306
D302
R308
R315
R316
Q309
D317
F304
R306
C316
C008
CN308
C320
C319
R303
R305
Q302
R302
Q308
R314
R313
R304
Q303
Q301
D313
D315
D318
Q307
R310
Q306
C309
C311
1-610-408
13
CN308(WHT)
ORG
ORG
BRN
BRN
YEL
YEL
AC 7V
AC 7V
AC 35V
AC 35V
AC 3.2V
AC 3.2V
T901 POWER TRANSFORMER
WHT
BLU
GRY
BLU
BRN
AC220V 50/60Hz (AEP MODEL)
AC240V 50/60Hz (UK MODEL)
AC 14V
AC 14V
RED
RED
CN407(BLK)
TO VIDEO BLOCK YC-25 BOARD CN3
SW 12V
SW 9V
GND
CN403(WHT)
CN405(WHT)
SW 12V
GND
SW -42V
TO TUNER, AUDIO BLOCK AM-4 BOARD CN505
【PS-23 BOARD】
CN407
F402
CN403
CN405
F401
D401
C406
C401
UK MODEL ONLY
AEP MODEL ONLY
C414
C415
R411
IC401
1-610-409
13
BLK
ORG
BLU
WHT
RED
BLK
ORG
BLU
WHT
RED
SW 9V
UN 16V
POWER ON
GND
SW 12V
RED
KEY
RST
LED
(KMO φ)
(KMI 2)
ENT
ENT
RED
WHT
BLU
ORG
【TM-38 BOARD】
1-610-404
R101
D102
TIMER REC
S103
RECORD
RECORD
D103
S104
D105
D104
S102
D101
S101
TIMER/COUNTER
13
BILNGAL
STEREO
B
A
RESET
: AEP MODEL ONLY
FL 101 (FLUORESCENT DISPLAY TUBE)
7G
6G
5G
4G
3G
2G
1G
1
2
3
4
5
6
7
PROG
col 1
col 2
a
b
c
d
e
f
g
a1
a2
b1
b2
c1
c2
d1
d2
e1
e2
f1
f2
g1
g2
F NC 4~7 3 col2 f g 7G e d c 6G b a g2 f2 5G a2 e2 4G d2 c2 3G b2 f1 2G g1 1G e1 d1 c1 b1 NC a1 PROG F
1,2
col 1
1
5
10
15
20
25
30
35 36

POWER SUPPLY, TIMER POWER SUPPLY, TIMER

PS-22 (POWER SUPPLY REGULATOR) **PS-23** (POWER SUPPLY REGULATOR) **TM-37** (TIMER CONTROL) **TM-38** (TIMER INDICATOR REC RESET TIMER COUNTER SWITCH) **TM-39** (TIMER PRESET SWITCH) **N** (REMOTE CONTROL SIGNAL SENSOR)

– Ref. No. PS-22 BOARD: 6300 series, PS-23 BOARD: 6400 series, TM-37 BOARD: 7000 series, TM-38 BOARD: 7100 series, TM-39 BOARD: 7200 series, N BOARD: 9600 series –



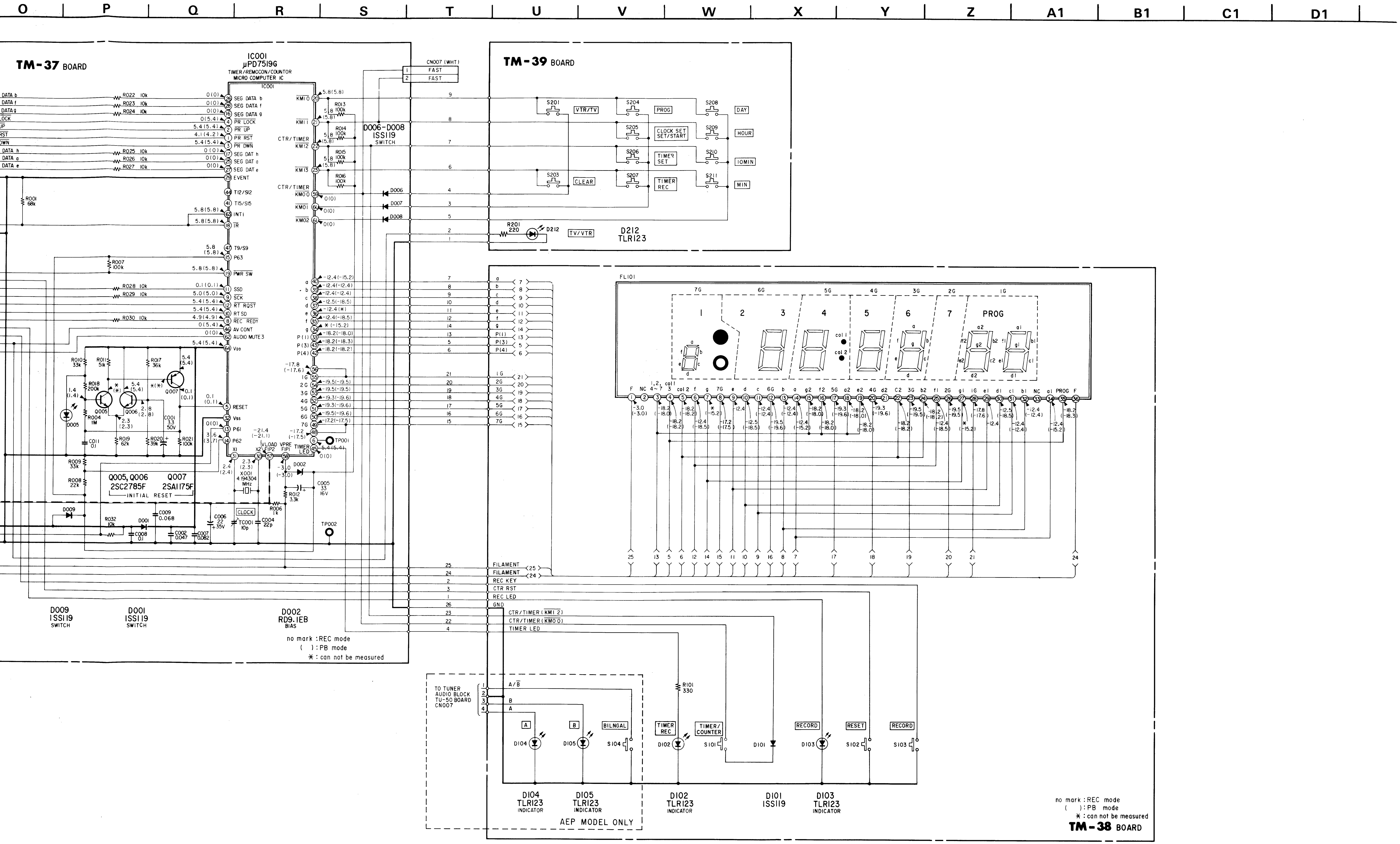
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
1
2
3
4
5
6
7
8
9
10
AC 220V 50/60Hz (AEP MODEL)
AC 240V 50/60Hz (UK MODEL)
BRN
BLU
WHT
GRY
F401 T2A
C401 0.1 250V
AEP MODEL ONLY
UK MODEL ONLY
240V
220V
0V
POWER TRANSFORMER T901
D401 S5VB20 RECTIFIER
IC401 STRI229 REGULATOR
IC401
12VREG
9VREG
12.2
9
10
16.8
F402 3.15A
CN407(BLK)
RED AC14V 1
RED AC14V 2
C406 10000 25V
C414 47 16V
R411 470
C415 47 16V
CN405(YEL)
SW12V
GND
UN-42V
TO TUNER AUDIO BLOCK AM-4 BOARD CN505
CN403(WHT)
SW12V
SW9V
GND
TO VIDEO BLOCK YC-25BOARD CN003
PS-23 BOARD
TO TUNER AUDIO BLOCK TU-39 BOARD CN001 UK MODEL
TO TUNER AUDIO BLOCK TU-50BOARD CN001 AEP MODEL
CN302(BLK)
SW5V
UN42V
UN-42V
GND
CN301(WHT)
SW5V
GND (E)
SW12V(M)
GND (M)
SW12V (E)
TO SERVO SYSTEM CONTROL BLOCK SS-16BOARD CN609
D302
Q301 2SD1310 REGULATOR
7.0
5.2
5.9
R302 3k
R304 1k
Q303
R303 20k
Q302
3.2
2.6
C308 2200 16V
C316 22 16V
R301 330
R305 4.7k
R306 12k
F306 500mA
CN308(WHT)
ORG AC7V 1
ORG AC7V 2
BRN AC35V 3
BRN AC35V 4
YEL AC3.2V 5
YEL AC3.2V 6
D302 SIVB10-S RECTFIER
Q306 2SC2785 SWITCH
Q308 2SD1310 REMOCON AMP
Q307 2SD1310 REGULATOR
10.0
R310 10k
R308 1.2k (1W)
CN304(WHT)
UN -19V
AC3.2V
AC3.2V
UN6.2V
PWR.ON
GND
UN12V
42
D313
C309 470 63V
Q302 2SC2785 ERROR AMP
Q303 2SC2785 REFERENCE
F304 500mA
12.4
6.0
6.6
Q307
Q308
R313 33 (1/2W)
13.0
Q309
7.3
R315 47k
D318
C319 22 16V
C320 22 16V
R314 27k
D317
R316 75k
C311 220 63V
D315
-43
CN306(RED)
SW9V
GND
UN12V
TO TUNER AUDIO BLOCK RFU CN001
D313, D315 10E2 RECTFIER
Q309 2SC2785 SWITCH
D317 RD6.8EB2 ZENER
D318 RD7.5EB2
PS-22 BOARD
no mark : E-E mode
TM-37 BOARD
CN001
SEG DATA b
SEG DATA f
SEG DATA g
PR LOCK
PR UP
PR RST
PR DWN
SEG DATA h
SEG DATA a
SEG DATA e
GND
TO TUNER AUDIO BLOCK TU-39 BOARD CN006 UK MODEL
TO TUNER AUDIO BLOCK TU-50 BOARD CN006 AEP MODEL
R022 10k
R023 10k
R024 10k
R025 10k
R026 10k
R027 10k
R001 68k
CN002(WHT)
BRN UN 12V
WHT IR
WHT GND
TO SERVO SYSTEM CONTROL BLOCK SS-16 BOARD CN602
PWR. SW
CTR. RST.
SSD
SC
RT.RQST.
RTSD
REC READY
REC LED
REC KEY
AV. CONT
AUDIO MUTE
R007 100k
R028 10k
R029 10k
R030 10k
R010 33k
R011 51k
R017 36k
R018 200k
Q005
Q006
R004 1M
D005
D005 TLR124 BIAS
C011 .01
R019 62k
R020 39k
C001 33 50V
R009 33k
R008 22k
Q005, Q006 2SC2785F INITIAL RESET
CN004(WHT)
UN -19V
AC32V
AC32V
UN6.2V
PWR ON
GND
UN12V
D009
R032 10k
D001
C008 .01
C009 0.068
D009 1SS119 SWITCH
D001 1SS119 SWITCH
N BOARD
IC001 µPC1373H REMOCON AMP
no mark : E-E mode
D001 PH302B INFRARED DETECTOR
REMOTE SENSOR
IC001
BIAS
AMP
LIMITER LEVEL SHIFT
PEAK DET
OUTPUT SHAPE
ABLC
2.6
0.6
0.9
C004 0.033
2.1
C002 10 16V
10.8
C005 0.0033
C003 10 16V
9.5
C001 10 16V
L001 4.7mH
C006 47 16V
1k
4.7
1SS119
150k
100k
560
CP001

- All resistors are in ohms, 1/6W unless otherwise noted.
- All capacitors are in µF (p:pF) unless otherwise noted. 50V or less are not indicated except for electrolytic capacitors.
- All variable and semi-fixed resistors have characteristic curve B, unless otherwise noted.
- ⊡ : Nonflammable resistor
- ⊡ : Fusible resistor
- ——— : B + bus.
- – – – : B – bus.
- The voltage value is a reference value between the grounding when the color bar signal is received from a color bar generator.

The voltage value is measured using a digital tester (10MΩ).

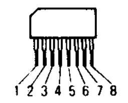
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

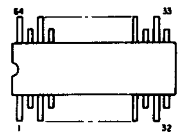

O P Q R S T U V W X Y Z A1 B1 C1 D1
TM-37 BOARD
IC001 μPD75196 TIMER/REMOCON/COUNTOR MICRO COMPUTER IC
SEG DATA b
SEG DATA f
SEG DATA g
PR LOCK
PR UP
PR RST
PR DWN
SEG DAT h
SEG DAT a
SEG DAT e
EVENT
T12/SI2
T15/SI5
INTI
IR
T9/S9
P63
PWR SW
SSD
SCK
RT RQST
RT SD
REC READY
AV CONT
AUDIO MUTE 3
VDD
RESET
VSS
P61
P62
XI
X2
VLOAD F1P2
VPRE F1P1
TIMER LED
KMI0
KMI1
KMI2
KMI3
KMO0
KMO1
KMO2
CTR/TIMER
R001 68k
R007 100k
R013 100k
R014 100k
R015 100k
R016 100k
D006-D008 1SS119 SWITCH
CN007 (WHT)
FAST
Q005, Q006 2SC2785F
Q007 2SA1175F
INITIAL RESET
X001 4194304 MHz
CLOCK
TC001 10p
TP001
TP002
D009 1SS119 SWITCH
D001 1SS119 SWITCH
D002 RD9.1EB BIAS
no mark : REC mode
( ) : PB mode
* : can not be measured
TM-39 BOARD
S201 VTR/TV
S203 CLEAR
S204 PROG
S205 CLOCK SET SET/START
S206 TIMER SET
S207 TIMER REC
S208 DAY
S209 HOUR
S210 10MIN
S211 MIN
R201 220
D212 TV/VTR
D212 TLR123
FL101
PROG
col 1
col 2
FILAMENT
REC KEY
CTR RST
REC LED
GND
CTR/TIMER (KMI 2)
CTR/TIMER (KMO 0)
TIMER LED
TO TUNER AUDIO BLOCK TU-50 BOARD CN007
A/B
A
B
BILNGAL
D104 TLR123 INDICATOR
D105 TLR123 INDICATOR
S104
AEP MODEL ONLY
R101 330
TIMER REC
TIMER/COUNTER
S101
D102 TLR123 INDICATOR
D101 1SS119
RECORD
D103 TLR123 INDICATOR
RESET
S102
S103
no mark : REC mode
( ) : PB mode
* : can not be measured
TM-38 BOARD

SEMICONDUCTORS

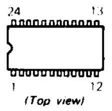
µPC1391H CX20008
µPC1373 CX20061
CX7926



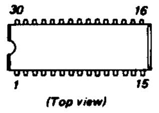
µPD7519G



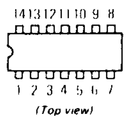
CX864
CX867
CX868
CX869A


24
13
1
12
(Top view)

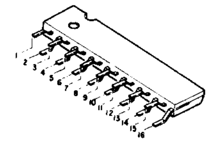
M54836AP


30
16
1
15
(Top view)

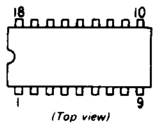
µPC324C MB84013B
µPD4013BC MB84069UB
HD14069UBP TC4013BP
MB3614 TC4069UBP


14 13 12 11 10 9 8
1 2 3 4 5 6 7
(Top view)

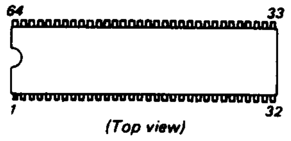
BA3402



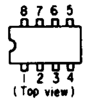
CX882


18
10
1
9
(Top view)

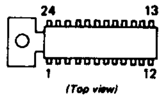
MB88421


64
33
1
32
(Top view)

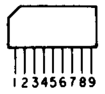
µPC358C
µPC4558C
NJM4558D
NJM4562D-D


8 7 6 5
1 2 3 4
(Top view)

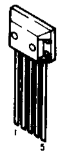
CX134A
CX135


24
13
1
12
(Top view)

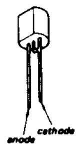
CX894
TA7320P



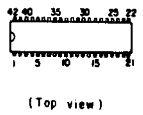
STR1229



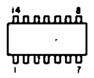
µPC574J


anode
cathode

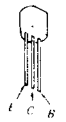
CX194B-0
CX194B-5


42 40 35 30 25 22
1 5 10 15 21
(Top view)

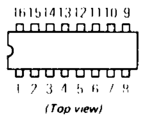
CX7945



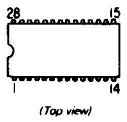
2SA772 2SC1475
2SB739 2SD788
2SB740 2SD789
2SC1474



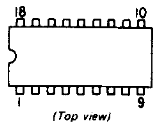
µPC1571C
µPD4053BC
CX870A
HD14053BP
MB84053B
TA7607AP
TC4053BP


16 15 14 13 12 11 10 9
1 2 3 4 5 6 7 8
(Top view)

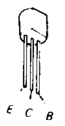
CX862
CX869


28
15
1
14
(Top view)

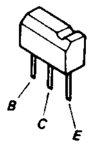
LA7040


18
10
1
9
(Top view)

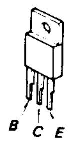
2SA733
2SA844



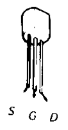
2SA874
2SA881
2SC2673



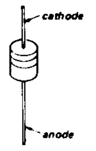
2SC1061
2SC1826
2SC1827



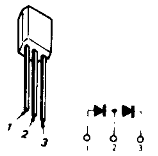
2SK107
2SK105A



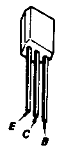
1SS119
1SS148


cathode
anode

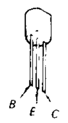
MC931



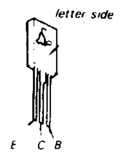
2SA1048
2SA1115
2SC403SP
2SC2458
2SC2603



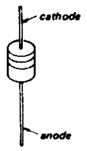
2SC2009



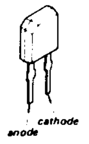
DTC144ES


letter side
E C B

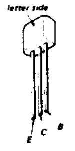
1SS120


cathode
anode

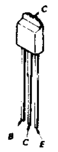
PH302B


anode
cathode

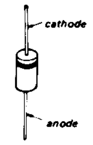
2SA1175
2SC2785


letter side
E C B

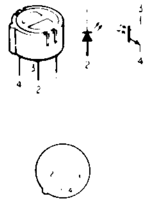
2SD1164



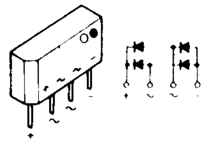
10E-2
EQA02-13AB5
GP08D


cathode
anode

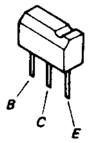
GP-2S02A
GP-2S02B
GP-2S02C



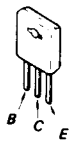
S1VB10



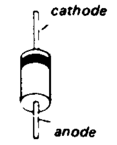
2SA1184



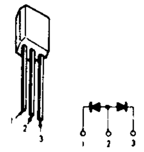
2SD1310



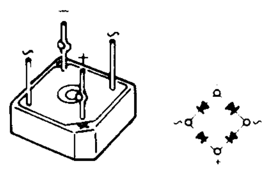
1N4148H
1S1555
1S2076
1S2473
1SS133
RD5.6EB1
RD6.2E-B
RD6.8EB2
RD7.5EB1
RD7.5EB2
RD8.2E-B1
RD8.2EB2
RD9.1E-B
RD10EB1
RD10EB2
RD12EL1
RD12EL2
RD12EL3
RD13E-B
RD13EB2
RD13EB3


cathode
anode

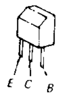
MC911



S5VB10
S5VB20



2SB733
2SB734
2SD773
2SD774



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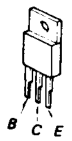

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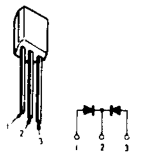
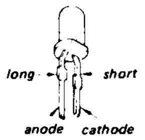
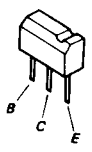


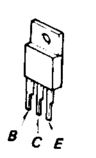
TLG123A
TLO123
TLR123
TLR124
TLY123


long
short
anode
cathode

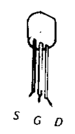
2SA874
2SA881
2SC2673



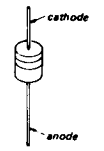
2SC1061
2SC1826
2SC1827



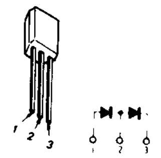
2SK107
2SK105A



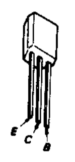
1SS119
1SS148


cathode
anode

MC931



2SA1048
2SA1115
2SC403SP
2SC2458
2SC2603



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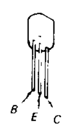
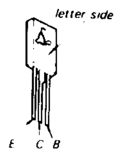
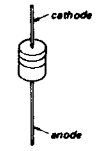


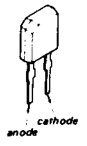
DTC144ES


letter side
E
C
B

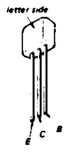
1SS120


cathode
anode

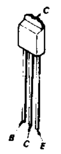
PH302B


cathode
anode

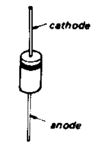
2SA1175
2SC2785


letter side
E
C
B

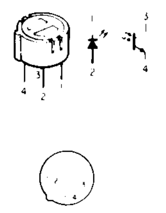
2SD1164



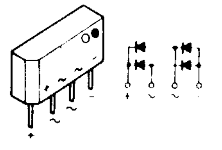
10E-2
EQA02-13AB5
GP08D


cathode
anode

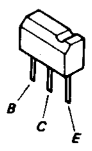
GP-2S02A
GP-2S02B
GP-2S02C



S1VB10



2SA1184



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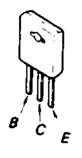

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1S2076
1S2473
1SS133
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RD6.2E-B
RD6.8EB2
RD7.5EB1
RD7.5EB2
RD8.2E-B1
RD8.2EB2
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RD10EB1
RD10EB2
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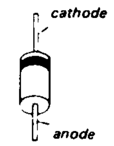
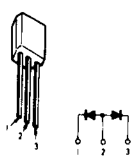
RD12EL2
RD12EL3
RD13E-B
RD13EB2
RD13EB3


cathode
anode

MC911



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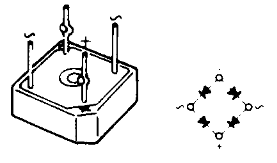
S5VB20



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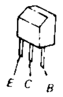

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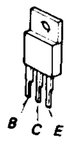

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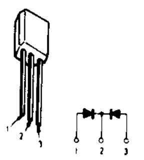

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TLR123
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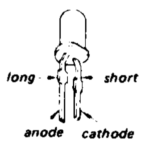
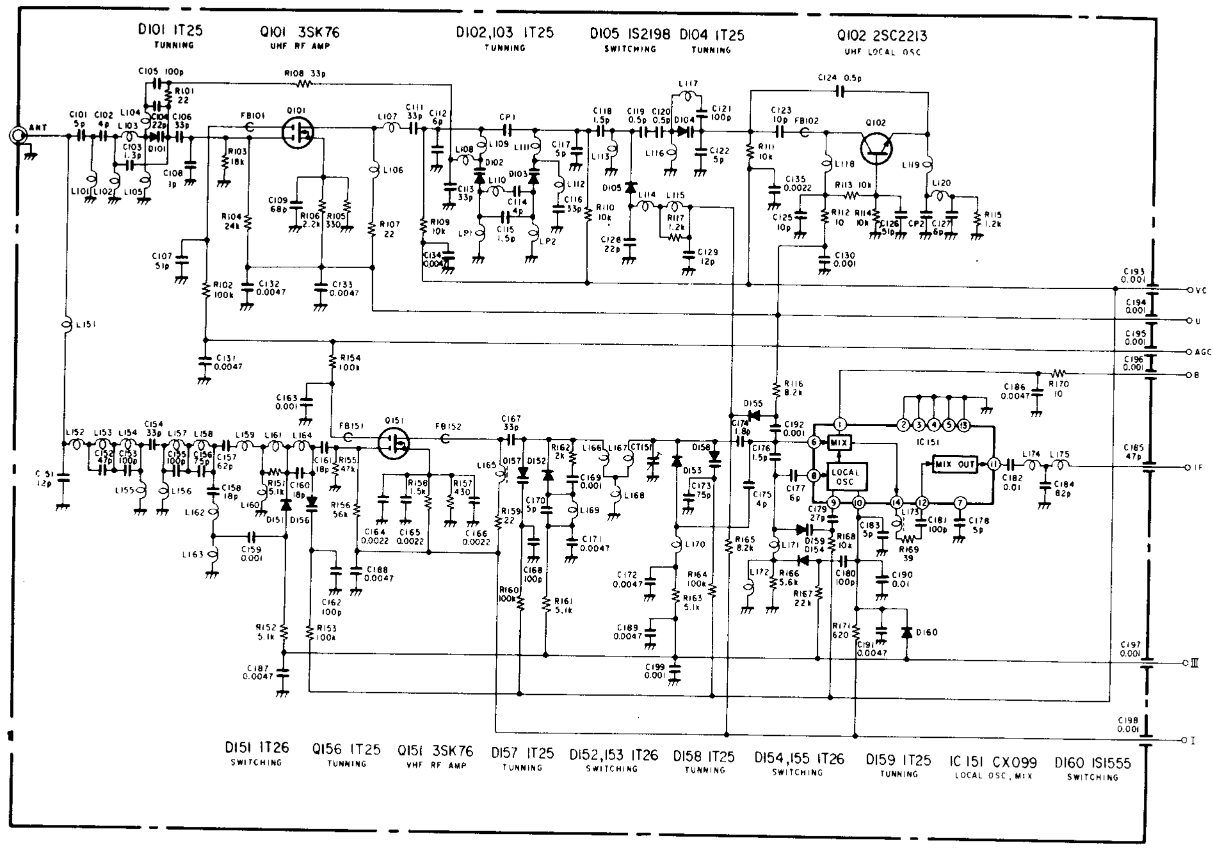
TLY123


long
short
anode
cathode

VHF/UHF TUNER SCHEMATIC DIAGRAM

- **BT-881 (AEP model)**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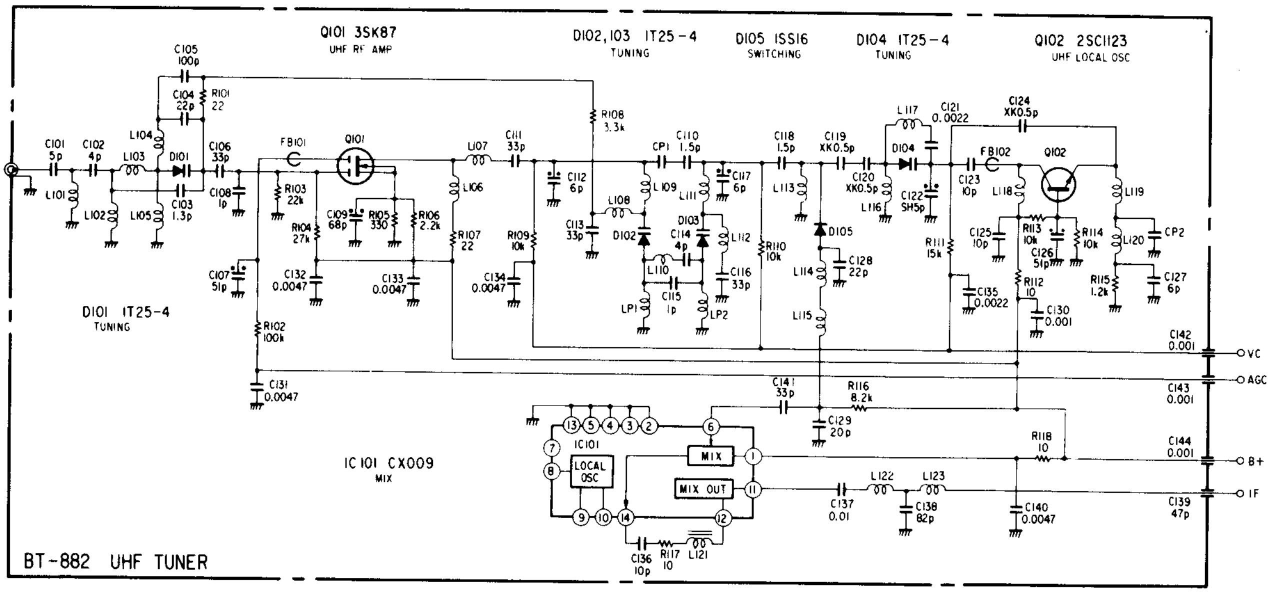
TUNNING
Q101 3SK76
UHF RF AMP
D102,103 1T25
TUNNING
D105 1S2198
SWITCHING
D104 1T25
TUNNING
Q102 2SC2213
UHF LOCAL OSC
ANT
MIX
LOCAL OSC
MIX OUT
IC151
VC
U
AGC
B
IF
III
I
D151 1T26
SWITCHING
Q156 1T25
TUNNING
Q151 3SK76
VHF RF AMP
D157 1T25
TUNNING
D152,153 1T26
SWITCHING
D158 1T25
TUNNING
D154,155 1T26
SWITCHING
D159 1T25
TUNNING
IC 151 CX099
LOCAL OSC, MIX
D160 1S1555
SWITCHING

- **BT-882 (UK model)**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UHF RF AMP
D102,103 1T25-4
TUNING
D105 1SS16
SWITCHING
D104 1T25-4
TUNING
Q102 2SC1123
UHF LOCAL OSC
ANT
J101
D101 1T25-4
TUNING
IC101 CX009
MIX
MIX
LOCAL OSC
MIX OUT
VC
AGC
B+
IF
BT-882 UHF TUNER

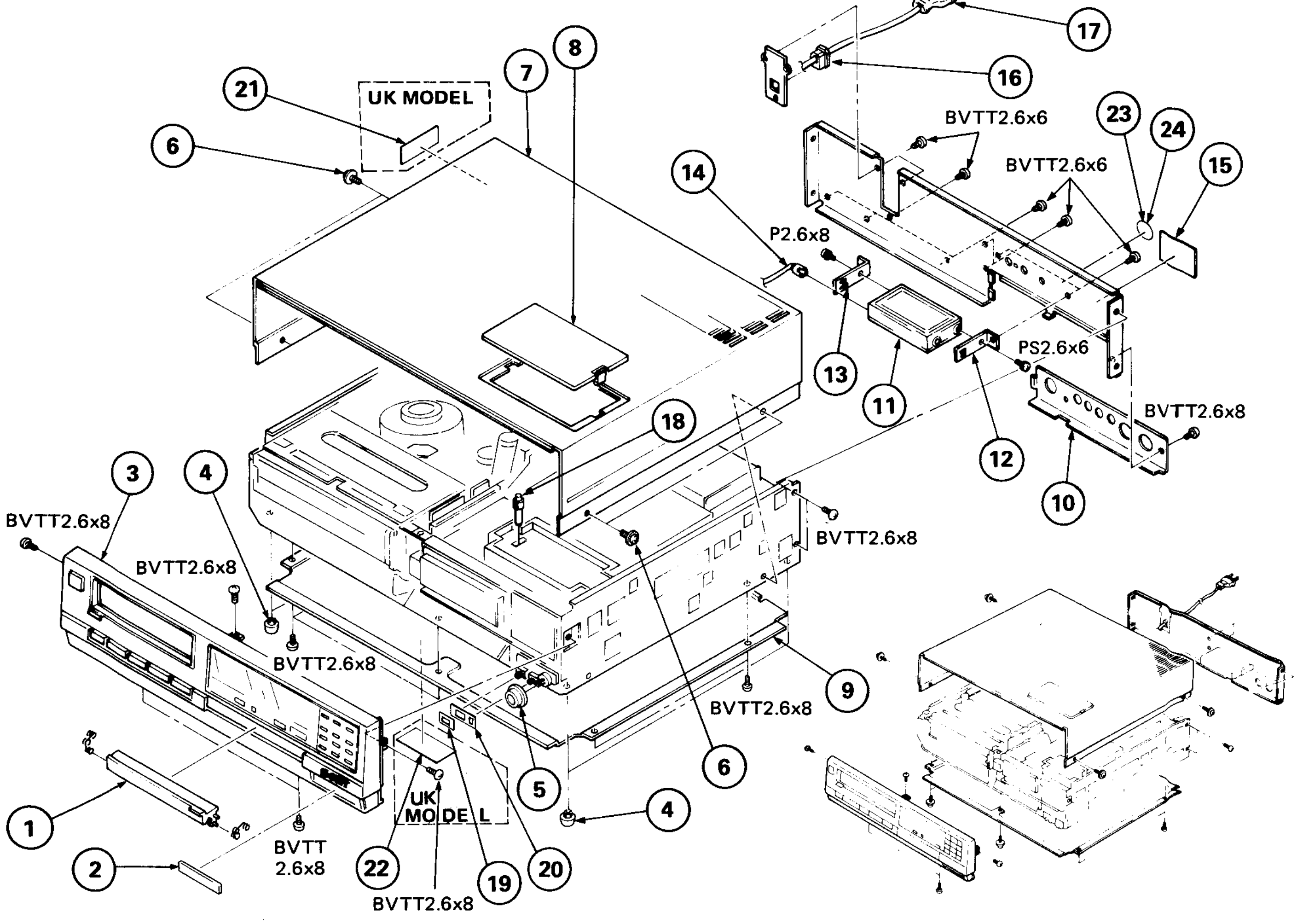
SECTION 4
EXPLODED VIEW

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ♦ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

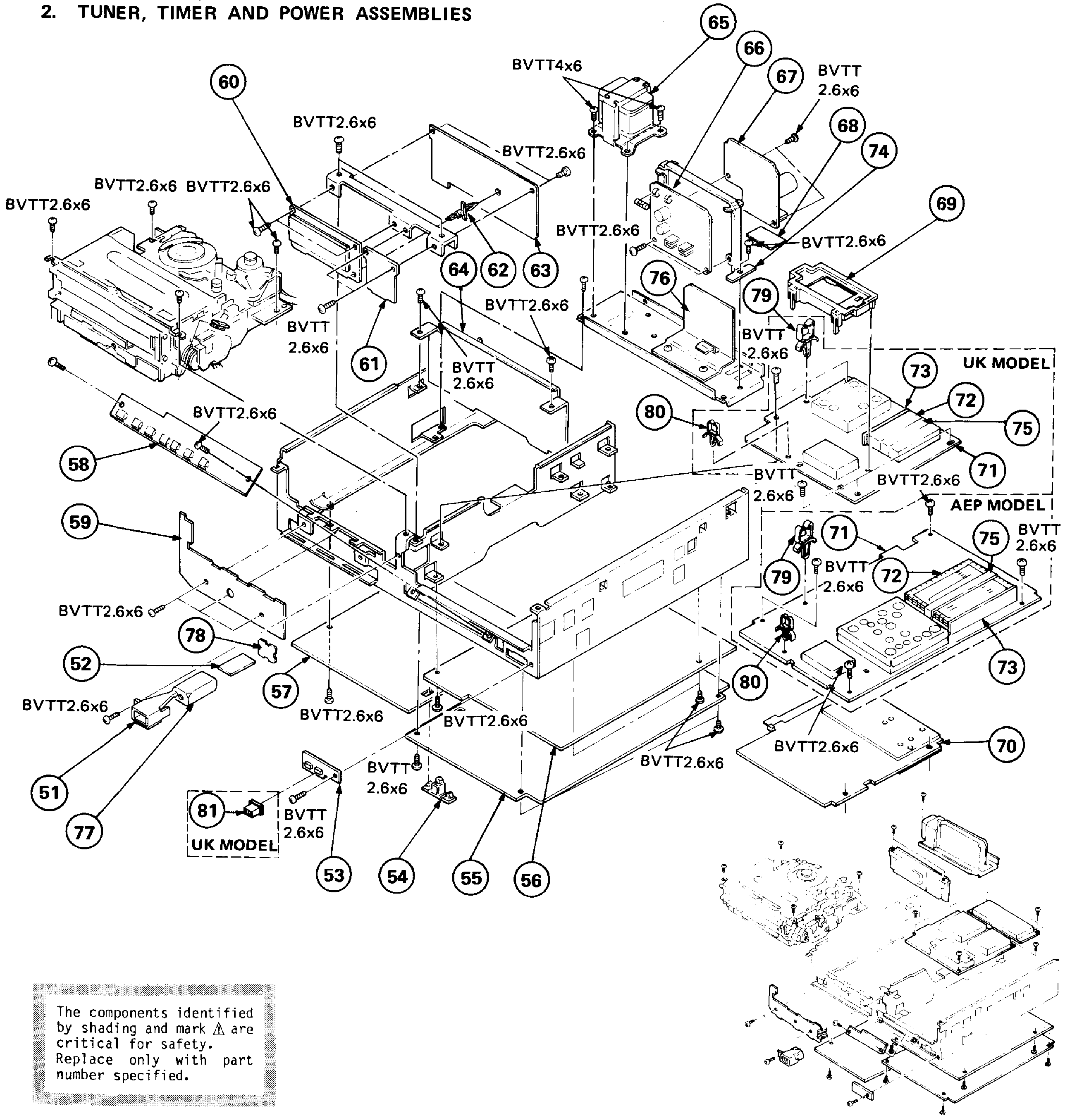
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

1. FRONT PANEL AND CABINET ASSEMBLIES



No.	Part No.	Description	Remark
1	X-3681-122-0	DOOR ASSY, TIMER (AEP MODEL/GRAY)	
	X-3681-129-0	DOOR ASSY, TIMER (UK MODEL/SILVER)	
2	3-681-110-21	LABEL, TRACK CONTROL	
3	A-6703-358-A	PANEL BLOCK ASSY, FRONT (AEP MODEL/GRAY)	1,2
	A-6703-374-A	PANEL BLOCK ASSY, FRONT (UK MODEL/SILVER)	1,2
4	3-670-155-00	LEG	
5	3-681-118-00	KNOB, TRACK CONTROL	
6	3-703-354-01	SCREW (OS), CASE, CLAW	
7	X-3681-117-0	CASE ASSY, UPPER (AEP MODEL/GRAY)	
	X-3681-118-0	CASE ASSY, UPPER (UK MODEL/SILVER)	
8	X-3681-119-0	DOOR ASSY, PRESET (UK MODEL/SILVER)	
	X-3681-121-0	DOOR ASSY, PRESET (AEP MODEL/GRAY)	
9	3-681-152-00	PLATE, BOTTOM	
10		PANEL, CONNECTOR	
11	⚠.1-464-270-00	BOOSTER, RF MODULATOR(RFU-808) (AEP MODEL)	
	⚠.1-464-274-00	BOOSTER, RF MODULATOR(RFU-809)(UK MODEL)	
12	♦:3-681-101-00	BRACKET (RIGHT), RBM	
13	♦:3-681-102-00	BRACKET (LEFT), RBM	
14	♦:1-555-110-00	CABLE, PIN	
15	♦:3-681-206-00	LABEL, MODEL NUMBER (AEP MODEL)	
	♦:3-681-207-00	LABEL, MODEL NUMBER (UK MODEL)	
16	⚠.3-703-244-00	BUSHING, CORD	
17	⚠.1-534-817-XX	CORD, POWER (AEP MODEL)	
	⚠.1-551-884-00	CORD, POWER (UK MODEL)	
18	3-681-186-00	KNOB, TUNING	
19	3-681-167-00	COVER (SMALL), SL	
20	3-681-166-00	COVER (LARGE), SL	
21	♦:3-703-082-31	LABEL, CAUTION (UK MODEL)	
22	♦:3-703-043-31	LABEL, CAUTION, MAIN (UK MODEL)	
23	♦:3-656-047-00	LABEL, F MARK (AEP MODEL)	
24	♦:3-701-940-01	LABEL, BEAB (UK MODEL)	

2. TUNER, TIMER AND POWER ASSEMBLIES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BVTT4x6
BVTT 2.6x6
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BVTT2.6x6
BVTT2.6x6
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BVTT2.6x6 BVTT2.6x6
BVTT2.6x6
BVTT2.6x6
BVTT2.6x6
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BVTT2.6x6
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BVTT 2.6x6
BVTT 2.6x6
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BVTT 2.6x6
UK MODEL
73
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BVTT2.6x6
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BVTT 2.6x6
BVTT2.6x6
AEP MODEL
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BVTT 2.6x6
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BVTT2.6x6
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BVTT 2.6x6
BVTT2.6x6
51
81
UK MODEL
BVTT 2.6x6
77
53
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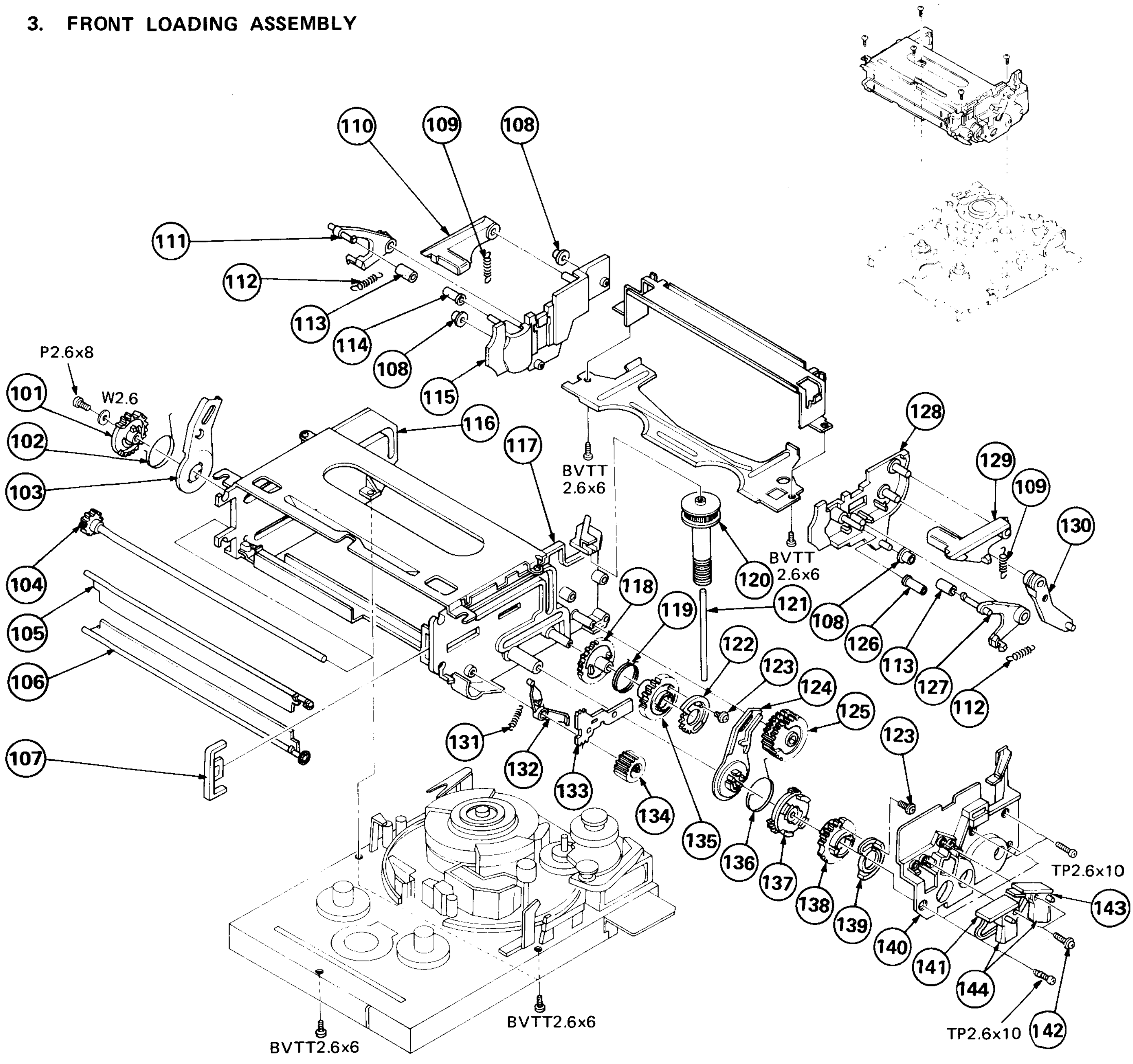
56

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

No.	Part No.	Description	Remark
51	3-681-145-00	HOLDER, RAY CATCHER	
52	♦:1-606-794-00	N BOARD	
53	♦:1-610-411-00	SW-27 BOARD (AEP MODEL)	
	♦:1-610-412-11	SW-29 BOARD (UK MODEL)	
54	♦:3-681-184-00	HOLDER, PC BOARD	
55	♦:A-6711-466-A	YC-25 BOARD, COMPLETE (AEP MODEL)	
	♦:A-6711-470-A	YC-25 BOARD, COMPLETE (UK MODEL)	
56	♦:A-6715-187-A	SS-16 BOARD, COMPLETE	
57	♦:A-6711-443-A	RY-1 BOARD, COMPLETE	
58	♦:1-610-405-00	TM-39 BOARD	
59	♦:1-610-406-00	FU-14 BOARD	
60	♦:1-610-404-00	TM-38 BOARD	
61	♦:1-610-407-00	CH-36 BOARD	
62	3-681-127-00	HOLDER, PCB	
63	♦:1-610-403-00	TM-37 BOARD	
64	♦:3-681-123-00	PLATE, SHIELD	
65	⚠.1-447-614-00	TRANSFORMER, POWER	
66	♦:A-6728-809-A	PS-22 BOARD, COMPLETE	
67	♦:1-610-409-00	PS-23 BOARD	
68	3-681-112-00	SHEET, RADIATION	
69	3-681-146-00	COVER, PRESET	
70	♦:A-6713-182-A	AM-4 BOARD, COMPLETE (AEP MODEL)	
	♦:A-6713-183-A	AM-4 BOARD, COMPLETE (UK MODEL)	
71	♦:A-6721-182-A	TU-50 BOARD, COMPLETE (AEP MODEL)	
	♦:A-6721-168-A	TU-39 BOARD, COMPLETE (UK MODEL)	
72	⚠.1-463-350-00	TUNER (BT-881) (AEP MODEL)	
	⚠.1-463-371-00	TUNER (BT-882) (UK MODEL)	
73	♦:1-611-042-00	MT-7 BOARD (AEP MODEL)	
	♦:1-610-400-00	MT-4 BOARD (UK MODEL)	
74	♦:3-681-144-00	BRACKET, POWER PC BOARD	
75	♦:3-681-220-00	BAND, TUNER, RETAINER	
76	3-681-116-02	HEAT SINK	
77	♦:4-342-117-00	CASE, SHIELD (MAIN), R	
78	♦:4-342-118-00	LID, SHIELD CASE, R	
79	♦:3-655-214-00	CLIP, CABLE	
80	♦:3-644-407-00	CLIP, AC WIRE E	
81	♦:3-681-215-00	BUTTON, SL (UK MODEL)	

3. FRONT LOADING ASSEMBLY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P2.6x8
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W2.6
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BVTT 2.6x6
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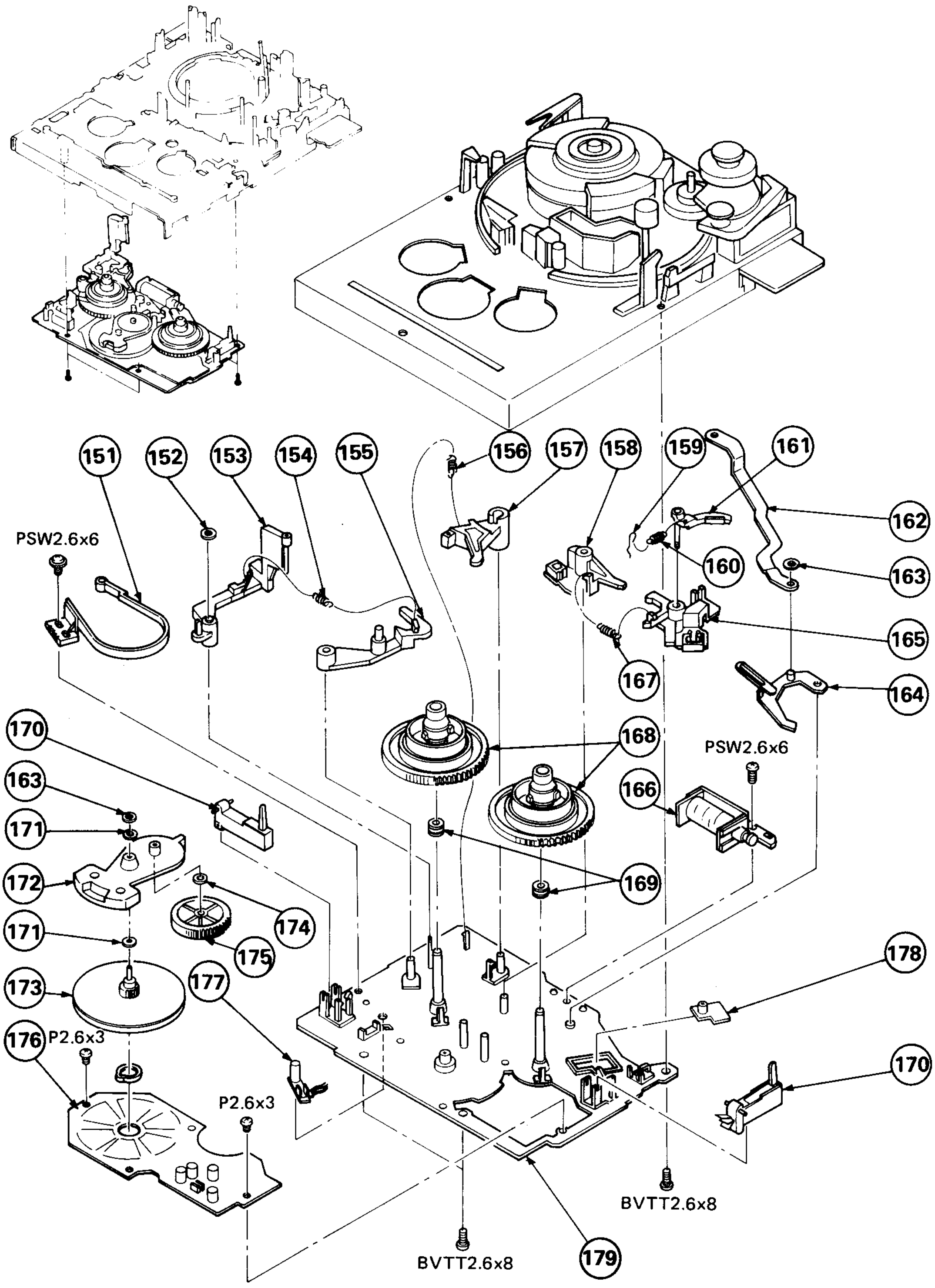
TP2.6x10
TP2.6x10
142
BVTT2.6x6
BVTT2.6x6

No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
101	3-679-226-02	GEAR (LEFT), ARM, DRIVING		123	3-669-480-21	+ PTPWH 2	
102	3-679-145-00	SPRING (LEFT)		124	3-679-219-02	ARM (RIGHT), DRIVING	
103	3-679-220-03	ARM (LEFT), DRIVING		125	3-679-216-02	WHEEL, WORM	
104	X-3679-105-0	SHAFT ASSY, GEAR, MIDWAY		126	3-679-316-00	ROLLER (LEFT), DRIVING	
105	3-679-222-02	DOOR, UPPER		127	3-679-129-02	LEVER(RIGHT), RETAINER, CASSETTE	
106	3-679-223-02	DOOR, LOWER		128	♠:X-3679-106-2	PLATE ASSY, SIDE, BASE RIGHT	
107	3-679-137-02	HOLDER, OUTER DOOR		129	3-679-131-02	LEVER (RIGHT), PREVENTION	
108	3-679-143-02	ROLLER		130	3-679-133-02	ARM, LID OPEN	
109	3-679-188-00	SPRING, TENSION		131	3-679-189-00	SPRING, TENSION	
110	3-679-132-02	LEVER (LEFT), PREVENTION		132	3-679-134-02	ARM, SWITCHING, DOOR	
111	3-679-130-02	LEVER (LEFT), RETAINER, CASSETTE		133	3-679-221-02	PLATE, RACK, SWITCHING, DOOR	
112	3-679-288-00	SPRING, TENSION		134	3-679-126-02	GEAR (RIGHT), MIDWAY	
113	3-679-135-00	RUBBER, RETAINER, CASSETTE		135	3-679-218-02	GEAR (B), LIMITER	
114	3-679-128-00	ROLLER (RIGHT), DRIVING		136	3-679-144-00	SPRING (RIGHT)	
115	♠:X-3679-107-2	PLATE ASSY, SIDE, BASE LEFT		137	3-679-225-02	GEAR (RIGHT), ARM, DRIVING	
116	♠:3-679-266-02	PLATE, SIDE, LEFT		138	3-679-125-02	GEAR, DRIVING	
117	♠:3-679-265-02	PLATE, SIDE, RIGHT		139	3-679-138-02	CAM (CASSETTE ON)	
118	3-679-217-04	GEAR (A), LIMITER		140	♠:3-679-214-02	HOLDER, GEAR, WORM	
119	3-679-139-00	SPRING		141	♠:1-609-227-00	CS-3 BOARD	
120	3-679-215-00	GEAR, WORM		142	3-669-480-00	+ PTPWH 2	
121	3-679-123-00	SHAFT, GEAR, WORM		143	♠:1-609-228-00	CS-4 BOARD	
122	3-679-124-02	CAM (CASSETTE OFF)		144	1-554-241-00	SWITCH, LEVER	

4. REEL TABLE ASSEMBLY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PSW2.6x6
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PSW2.6x6
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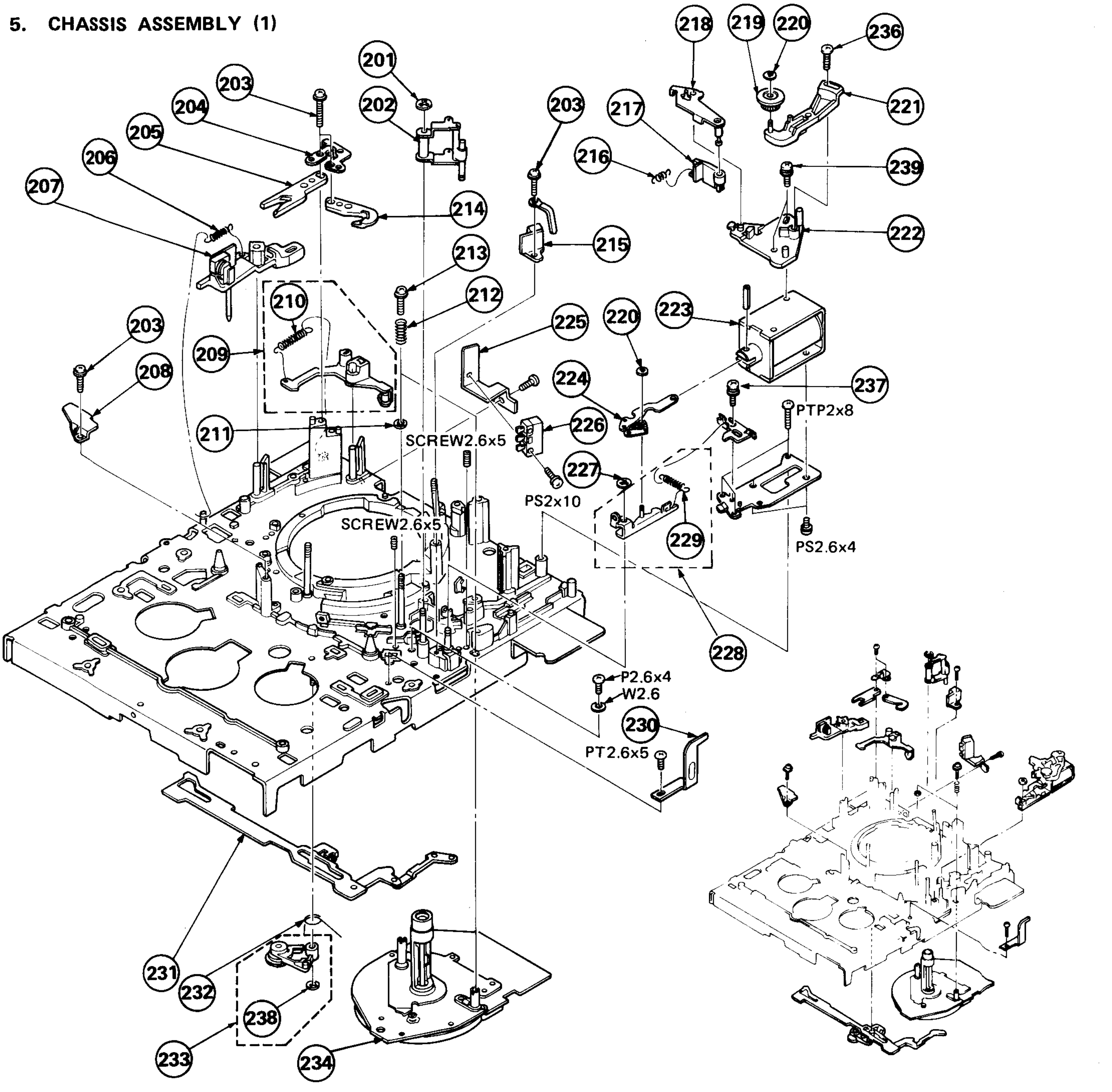
176
P2.6x3
170
P2.6x3
BVTT2.6x8
BVTT2.6x8
179

No.	Part No.	Description	Remark
151	X-3679-120-0	BAND ASSY, TENSION REGULATOR	
152	3-669-465-00	WASHER (1.5), STOPPER	
153	X-3679-122-0	LEVER ASSY, TENSION REGULATOR	
154	3-679-156-00	SPRING, TENSION	
155	♠:3-679-230-00	LEVER, FUNCTION	
156	3-679-151-00	SPRING, TENSION	
157	♠:3-679-231-00	LEVER, BRAKE, SOFT	
158	X-3679-117-3	BRAKE ASSY, S	
159	♠:3-681-163-00	HOOK, SPRING, REWIND	
160	3-681-156-00	SPRING, TENSION	
161	♠:X-3681-105-0	ARM ASSY, REWIND BRAKE	
162	♠:3-679-168-03	JOINT, BRAKE, L	
163	3-669-595-00	WASHER (2), STOPPER	
164	X-3679-119-4	ARM ASSY, STOPPER, PENDULUM	
165	X-3679-118-3	BRAKE ASSY, T	
166	1-454-348-31	SOLENOID, BRAKE PLUNGER	
167	3-679-190-02	SPRING, TENSION	
168	X-3681-104-0	TABLE ASSY, S REEL	
169	3-646-185-00	BEARING	
170	1-554-374-00	SWITCH, LEVER	
171	3-679-318-00	WASHER, PENDULUM ARM	
172	X-3679-114-3	ARM ASSY, PENDULUM	
173	X-2622-201-3	ROTOR ASSY, R	
174	3-679-305-05	WASHER, FRICTION	
175	X-3679-113-4	GEAR ASSY, PENDULUM	
176	♠:A-4910-021-A	MOUNTED PCB, R STATOR	
177	♠:1-610-401-00	RD-6 BOARD	
178	♠:1-610-402-00	RD-7 BOARD	
179	♠:X-3679-130-0	CHASSIS ASSY, SUB	

5. CHASSIS ASSEMBLY (1)



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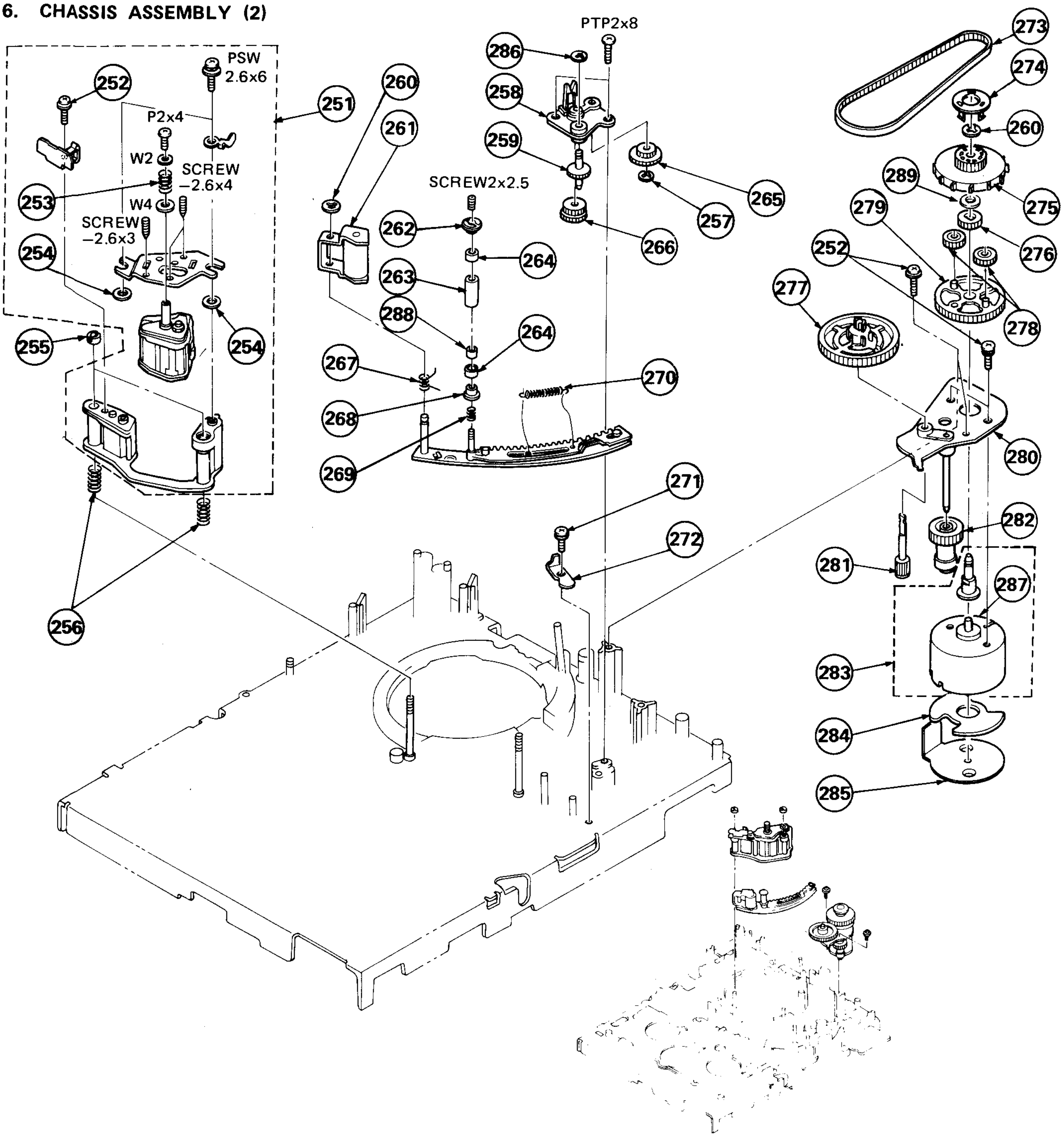
SCREW2.6x5
SCREW2.6x5
PS2x10
PTP2x8
PS2.6x4
P2.6x4
W2.6
PT2.6x5

No.	Part No.	Description	Remark
201	3-669-596-00	WASHER (2.3), STOPPER	
202	♠:X-3679-108-0	ARM ASSY, PRESS, PINCH	
203	3-669-480-11	+ PTPWH 2	
204	♠:3-672-540-00	PLATE, GROUND, TAPE GUIDE	
205	♠:3-669-618-00	PLATE (2), ADJUST	
206	3-679-164-00	SPRING, TENSION	
207	1-464-249-21	SENSOR, S COIL	
208	♠:3-669-476-04	PLATE, GUIDE	
209	X-3679-149-0	ARM (B) ASSY, LOCK	210
210	3-679-323-00	SPRING, TENSION	
211	3-669-697-00	SPACER, CAPSTAN	
212	3-679-359-00	SPRING, COMPRESSION	
213	3-669-633-00	SCREW, + PW2	
214	♠:3-672-507-00	PLATE (3-1), ADJUSTMENT	
215	1-464-250-00	SENSOR, T COIL	
216	3-508-108-XX	SPRING, TENSION	
217	♠:3-679-251-00	LIMITER, STOPPER	
218	♠:X-3679-123-0	ARM ASSY, STOPPER	
219	3-679-307-00	GEAR, TENSION	
220	3-669-465-00	WASHER (1.5), STOPPER	
221	♠:X-3679-145-0	ARM ASSY, CAR, TENSION	
222	♠:3-679-117-05	CHASSIS, ARM, STOPPER	
223	1-454-349-00	SOLENOID, PLUNGER	
224	X-3679-152-0	ARM (B) ASSY, PINCH SOLENOID	
225	♠:3-672-542-00	BRACKET, SWITCH, LE	
226	1-553-539-00	SWITCH, MICRO	
227	3-669-595-00	WASHER (2), STOPPER	
228	♠:X-3669-379-0	ARM (P) ASSY, PINCH LIMITER	229
229	3-465-159-XX	SPRING, TENSION	
230	♠:3-679-163-00	PLATE, LID OPEN	
231	X-3681-106-0	LEVER ASSY, SLIDE	
232	3-681-154-00	SPRING, TORSION	
233	X-3681-107-0	ARM ASSY, REVIEW BRAKE	
234	8-838-048-00	MOTOR, DC (BHF-1908A)	
236	3-669-607-00	+PSW (SMALL ROUND) 2.6	
237	3-669-607-31	+PSW (SMALL ROUND) (2.6)	
238	3-701-436-11	WASHER, 1.6	
239	3-681-231-00	+PW2.6x8	

6. CHASSIS ASSEMBLY (2)



PSW 2.6x6
P2x4
W2
SCREW −2.6x4
W4
SCREW −2.6x3
SCREW2x2.5
PTP2x8
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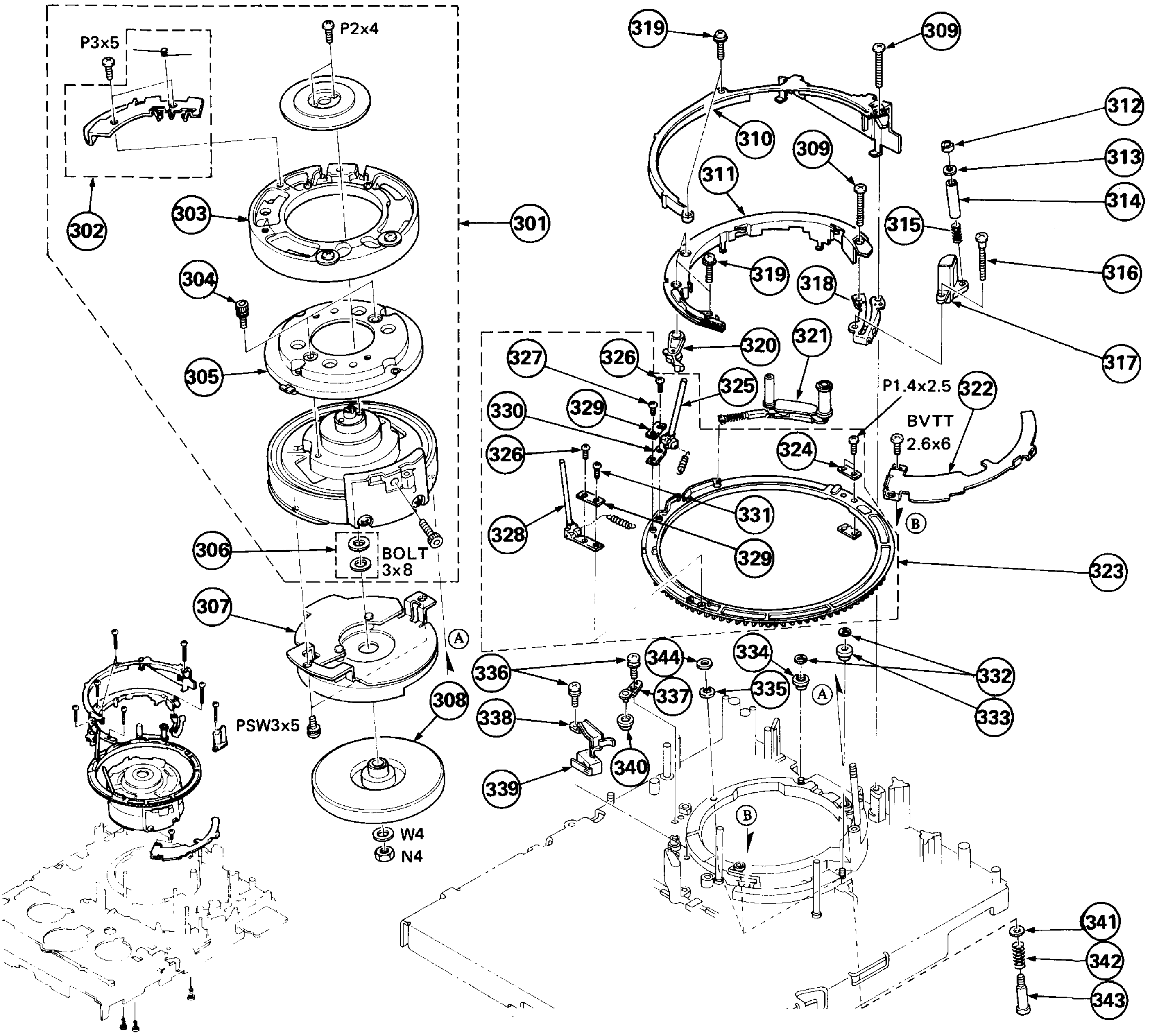
No.	Part No.	Description	Remark
251	A-6761-064-A	ACE ASSY	252,253,254
252	3-669-480-11	+ PTPWH 2	
253	♦:3-669-316-00	SPRING, COMPRESSION	
254	3-669-598-00	WASHER, CTL	
255	3-669-318-00	NUT, ADJUSTMENT, GUIDE	
256	3-669-317-00	SPRING, COMPRESSION	
257	3-669-465-00	WASHER (1.5), STOPPER	
258	X-3679-147-0	CHASSIS (B) ASSY, DRIVE GEAR	
259	X-3679-148-0	GEAR (F) ASSY (B)	
260	3-669-596-00	WASHER (2.3), STOPPER	
261	X-3669-307-6	ARM ASSY, PINCH ROLLER	
262	3-669-431-00	FLANGE (UPPER), GUIDE	
263	3-669-438-00	ROLLER, GUIDE	
264	3-669-443-00	BEARING, BALL (NO FLANGE)	
265	3-669-337-00	GEAR (D)	
266	3-669-338-00	GEAR (E)	
267	3-669-444-00	SPRING, TORSION	
268	3-669-432-00	FLANGE (LOWER), GUIDE	
269	3-669-452-00	SPRING, COMPRESSION	
270	3-549-014-00	SPRING, TENSION	
271	3-669-607-31	+PSW (SMALL ROUND) (2.6)	
272	♦:3-679-165-00	STOPPER, SLIDER	
273	3-679-119-00	BELT, SYNCHRO	
274	3-679-140-00	FLANGE, GEAR, INTERNAL	
275	3-679-101-03	GEAR, INTERNAL	
276	3-679-104-00	GEAR	
277	3-679-115-00	GEAR (LARGE), LOADING	
278	X-3679-124-2	GEAR ASSY, PLANET	
279	X-3679-111-0	CARRIER ASSY	
280	♦:X-3679-112-0	CHASSIS ASSY, GEAR, PLANET	
281	3-679-114-00	GEAR (SMALL), LOADING	
282	X-3669-321-0	GEAR (C) ASSY	
283	A-6737-118-A	MOTOR ASSY, L	287
284	♦:1-605-071-21	LM-8 BOARD	
285	♦:3-669-613-00	INSULATOR, L MOTOR	
286	3-669-595-00	WASHER (2), STOPPER	
287	1-541-163-31	MOTOR	
288	3-657-841-31	SPACER (2X2.5)	
289	3-701-439-11	WASHER	

7. DRUM AND S LOADING ASSEMBLIES


P3x5
P2x4
302
303
301
304
305
306
BOLT 3x8
307
308
PSW3x5
W4
N4
A
319
309
310
309
311
312
313
314
315
316
317
319
318
320
321
327
326
325
329
330
326
324
331
328
329
P1.4x2.5
322
BVTT 2.6x6
B
323
336
344
337
334
335
332
333
338
340
339
B
A
341
342
343

No.	Part No.	Description	Remark
301	A-6050-187-A	DRUM ASSY (DSH-35A-R)	302,303,304,305,306
302	A-6760-066-B	SPRING ASSY, TAPE RETAINER	
303	A-6760-138-A	DRUM SUB ASSY, UPPER	
304	3-669-157-00	BOLT (WASHER) (2.6X8)	
305	A-6762-122-A	DISK ASSY	
306	X-3669-105-0	SPACER BLOCK ASSY	
307	X-2621-204-2	STATOR ASSY, D	
308	X-2621-202-0	ROTOR ASSY, D	
309	3-669-466-00	SCREW (M 2.6)	
310	♠:3-669-585-00	GUIDE (2), SHUTTLE	
311	♠:3-669-584-00	GUIDE (1), SHUTTLE	
312	3-669-446-00	NUT, GUIDE, NO. 6	
313	3-669-447-00	FLANGE, GUIDE, NO. 6	
314	3-669-445-00	SPACER, GUIDE, NO. 6	
315	3-669-615-00	SPRING, COMPRESSION	
316	3-669-606-00	SCREW (2.6)	
317	8-825-508-10	HEAD, FE	
318	♠:X-3669-313-0	BASE ASSY, SLANT	
319	3-669-480-11	+ PTPWH 2	
320	X-3669-327-0	ARM ASSY, SWITCH, ULE	
321	A-6750-108-B	SHUTTLE BLOCK ASSY, THREADING	
322	♠:3-669-477-00	LINER, LINK, PIN	
323	X-3679-150-0	RING (YA) ASSY, S LOADING	324,325,326 327,328,329,330,331
324	♠:3-669-616-00	RETAINER	
325	♠:X-3669-430-2	HOLDER BLOCK ASSY, #3 GUIDE	
326	3-669-478-00	SCREW (1X3), TAPPING	
327	3-669-479-11	SCREW (1.4X3.5), TAPPING	
328	♠:X-3669-429-0	HOLDER BLOCK ASSY, #2 GUIDE	
329	♠:3-669-472-02	RETAINER, SPRING, LEAF	
330	3-672-583-00	SPRING	
331	3-672-586-00	SCREW (1.4X3), TAPPING	
332	3-669-465-00	WASHER (1.5), STOPPER	
333	3-669-597-00	ROLLER (B), RING	
334	3-669-630-00	ROLLER (C), RING	
335	♠:3-669-646-11	SPACER, DRUM	
336	3-669-607-31	+PSW (SMALL ROUND) (2.6)	
337	♠:X-3669-329-0	PLATE ASSY, ADJUSTMENT	
338	♠:3-669-355-00	HOLDER, SWITCH, ULE	
339	1-553-718-00	SWITCH, MICRO	
340	3-669-360-00	ROLLER, RING	
341	3-669-600-11	WASHER, FLAT (3.5)	
342	3-429-123-00	SPRING	
343	3-669-302-00	SCREW, FITTING	
344	♠:3-669-646-00	SPACER, DRUM	

8. HARDWARE LIST

SCREW

7-621-759-35	+PSW, 2.6X5
7-621-759-45	+PSW, 2.6X6
7-621-259-32	SCREW +P 2.6X5
7-621-259-35	SCREW +P 2.6X5
7-627-551-08	SCREW, PRECISION +P 1.4X1.6
7-627-551-28	SCREW, PRECISION +P 1.4X2.5
7-628-253-45	SCREW +PS 2X10
7-628-253-95	SCREW +PS 2.6X4
7-628-254-15	SCREW +PS 2.6X6
7-685-134-11	SCREW +P 2.6X8 TYPE2 NON-SLIT
7-685-135-11	SCREW +P 2.6X10 TYPE2 NON-SLIT
7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S
7-685-791-01	SCREW +PTT 2.6X5 (S)
7-685-861-09	SCREW +BVTT 2.6X5 (S)
7-685-862-01	SCREW +BVTT 2.6X6 (S)
7-685-863-01	SCREW +BVTT 2.6X8 (S)
7-685-880-01	SCREW +BVTT 4X6 (S)

SET-SCREW

7-621-712-26	SET-SCREW, SLOT 2.6X3FLAT POINT
7-621-712-35	SET-SCREW, SLOT 2.6X4CONE POINT
7-621-712-46	SET-SCREW, SLOT 2.6X5FLAT POINT

NUT

7-622-205-05	N 2, TYPE 2

SPRING PIN

7-626-302-31	SPRING PIN, 2.5X14

TAPPING

7-685-105-11	TPG +P 2X8, TYPE 2, NON-SLIT

WASHER

7-688-002-11	W 2.6, MIDDLE
7-688-004-01	W 4, SMALL

SECTION 5

ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- =>: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.
- Items marked " ♠ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS

- MF : μF, PF : μμF

RESISTORS

- All resistors are in ohms
- F : nonflammable

COILS

- MMH : mH, UH : μH

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description			Remark
	♠:A-4910-021-A	R STATOR BOARD, COMPLETE *************************			(REEL MOTOR BOARD)
	♠:1-560-460-00	PIN, CONNECTOR 4P			
		CAPACITOR			
C1	1-123-821-41	ELECT	47MF	20%	16V
C2	1-123-821-41	ELECT	47MF	20%	16V
C3	1-123-821-41	ELECT	47MF	20%	16V
C4	1-123-821-41	ELECT	47MF	20%	16V
		DIODE			
D1	8-719-941-48	DIODE 1N4148TP			
		IC			
IC1	8-759-108-77	IC CX-877			
		TRANSISTOR			
Q1	8-729-100-01	TRANSISTOR 2SD992			
Q2	8-729-100-01	TRANSISTOR 2SD992			
Q3	8-729-100-01	TRANSISTOR 2SD992			
Q4	8-729-100-01	TRANSISTOR 2SD992			
Q5	8-729-100-01	TRANSISTOR 2SD992			
Q6	8-729-100-01	TRANSISTOR 2SD992			
		RESISTOR			
R1	1-247-823-00	CARBON	470	5%	1/6W
R2	1-247-823-00	CARBON	470	5%	1/6W
R3	1-247-823-00	CARBON	470	5%	1/6W
R4	1-247-829-00	CARBON	820	5%	1/6W
R5	1-247-871-00	CARBON	47K	5%	1/6W
R6	1-247-871-00	CARBON	47K	5%	1/6W
R7	1-247-871-00	CARBON	47K	5%	1/6W
R8	1-247-871-00	CARBON	47K	5%	1/6W
		DIODE			
S1	8-719-810-31	DIODE THS103-1			
S2	8-719-810-31	DIODE THS103-1			

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Ref.No.	Part No.	Description			Remark
	♠:A-6711-443-A	RY-1 BOARD, COMPLETE ********************			
	♠:3-681-177-00	CASE (MAIN), SHIELD, RY			
	♠:3-681-178-00	LID, UPPER, SHIELD CASE, RY			
	♠:3-681-179-00	LID, BOTTOM, SHIELD CASE, RY			
		CAPACITOR			
C001	1-161-021-00	CERAMIC	0.047MF	10%	25V
C002	1-123-330-00	ELECT	22MF	20%	16V
C003	1-161-021-00	CERAMIC	0.047MF	10%	25V
C004	1-161-021-00	CERAMIC	0.047MF	10%	25V
C005	1-161-021-00	CERAMIC	0.047MF	10%	25V
C006	1-123-305-00	ELECT	33MF	20%	10V
C007	1-123-380-00	ELECT	1MF	20%	50V
C008	1-123-380-00	ELECT	1MF	20%	50V
C009	1-101-004-00	CERAMIC	0.01MF		50V
C010	1-161-021-00	CERAMIC	0.047MF	10%	25V
C011	1-161-013-00	CERAMIC	0.01MF	10%	25V
C012	1-123-330-00	ELECT	22MF	20%	16V
C013	1-161-013-00	CERAMIC	0.01MF	10%	25V
C014	1-161-019-00	CERAMIC	0.033MF	10%	25V
C015	1-102-973-00	CERAMIC	100PF	5%	50V
C016	1-161-021-00	CERAMIC	0.047MF	10%	25V
C017	1-161-021-00	CERAMIC	0.047MF	10%	25V
C018	1-123-381-00	ELECT	2.2MF	20%	50V
C019	1-161-021-00	CERAMIC	0.047MF	10%	25V
C020	1-161-017-00	CERAMIC	0.022MF	10%	25V
C021	1-123-356-00	ELECT	10MF	20%	16V
C022	1-102-951-00	CERAMIC	15PF	5%	50V
C023	1-102-951-00	CERAMIC	15PF	5%	50V
C024	1-161-013-00	CERAMIC	0.01MF	10%	25V
C026	1-161-013-00	CERAMIC	0.01MF	10%	25V
C027	1-123-356-00	ELECT	10MF	20%	16V
C028	1-161-017-00	CERAMIC	0.022MF	10%	25V
C029	1-161-017-00	CERAMIC	0.022MF	10%	25V
C030	1-161-013-00	CERAMIC	0.01MF	10%	25V
C031	1-161-025-00	CERAMIC	0.1MF	10%	25V
C032	1-161-013-00	CERAMIC	0.01MF	10%	25V
C035	1-101-005-00	CERAMIC	0.022MF		50V
C036	1-123-318-00	ELECT	33MF	20%	16V
C037	1-102-851-00	CERAMIC	15PF	5%	50V
C038	1-161-025-00	CERAMIC	0.1MF	10%	25V
C039	1-102-981-00	CERAMIC	300PF	5%	50V
C040	1-102-981-00	CERAMIC	300PF	5%	50V
C041	1-102-976-00	CERAMIC	180PF	5%	50V
C044	1-102-515-00	CERAMIC	24PF	5%	50V
C045	1-161-025-00	CERAMIC	0.1MF	10%	25V
C046	1-161-021-00	CERAMIC	0.047MF	10%	25V
C047	1-161-021-00	CERAMIC	0.047MF	10%	25V
C048	1-101-005-00	CERAMIC	0.022MF		50V
C049	1-123-318-00	ELECT	33MF	20%	16V
C051	1-123-318-00	ELECT	33MF	20%	16V
C052	1-101-005-00	CERAMIC	0.022MF		50V
C053	1-101-005-00	CERAMIC	0.022MF		50V
C054	1-102-112-00	CERAMIC	330PF	10%	50V
C055	1-101-006-00	CERAMIC	0.047MF		50V
C056	1-102-112-00	CERAMIC	330PF	10%	50V
C057	1-102-948-00	CERAMIC	11PF	5%	50V
C058	1-102-112-00	CERAMIC	330PF	10%	50V
C059	1-123-328-00	ELECT	4.7MF	20%	25V
C060	1-102-119-00	CERAMIC	0.0015MF	10%	50V
C061	1-101-004-00	CERAMIC	0.01MF		50V
C062	1-123-318-00	ELECT	33MF	20%	16V
C063	1-101-006-00	CERAMIC	0.047MF		50V
C065	1-161-013-00	CERAMIC	0.01MF	10%	25V

RY-1

Ref.No.	Part No.	Description			Remark
C066	1-101-005-00	CERAMIC	0.022MF		50V
C067	1-161-013-00	CERAMIC	0.01MF	10%	25V
C068	1-161-013-00	CERAMIC	0.01MF	10%	25V
C069	1-161-013-00	CERAMIC	0.01MF	10%	25V
C070	1-123-356-00	ELECT	10MF	20%	16V
C071	1-101-004-00	CERAMIC	0.01MF		50V
C073	1-102-511-00	CERAMIC	13PF	5%	50V
C074	1-102-522-00	CERAMIC	51PF	5%	50V
C075	1-102-522-00	CERAMIC	51PF	5%	50V
C076	1-102-511-00	CERAMIC	13PF	5%	50V
C077	1-101-006-00	CERAMIC	0.047MF		50V
C078	1-123-356-00	ELECT	10MF	20%	16V
C079	1-123-307-00	ELECT	100MF	20%	10V
C080	1-123-380-00	ELECT	1MF	20%	50V
C083	1-123-296-00	ELECT	220MF	20%	6.3V
C084	1-123-296-00	ELECT	220MF	20%	6.3V
C085	1-102-511-00	CERAMIC	13PF	5%	50V
C086	1-102-522-00	CERAMIC	51PF	5%	50V
C087	1-102-522-00	CERAMIC	51PF	5%	50V
C088	1-102-511-00	CERAMIC	13PF	5%	50V
C092	1-102-529-00	CERAMIC	100PF	5%	50V
C093	1-123-332-00	ELECT	47MF	20%	16V
C094	1-101-004-00	CERAMIC	0.01MF		50V
C096	1-123-356-00	ELECT	10MF	20%	16V
C097	1-101-005-00	CERAMIC	0.022MF		50V
C098	1-123-318-00	ELECT	33MF	20%	16V
C099	1-123-328-00	ELECT	4.7MF	20%	25V
C100	1-102-519-00	CERAMIC	36PF	5%	50V
C101	1-102-529-00	CERAMIC	100PF	5%	50V
C103	1-102-508-00	CERAMIC	10PF	0.5PF	50V
C105	1-101-005-00	CERAMIC	0.022MF		50V
C106	1-123-328-00	ELECT	4.7MF	20%	25V
C107	1-102-976-00	CERAMIC	180PF	5%	50V
C108	1-102-823-00	CERAMIC	430PF	5%	50V
C109	1-102-821-00	CERAMIC	360PF	5%	50V
C111	1-102-851-00	CERAMIC	15PF	5%	50V
C113	1-101-059-00	CERAMIC	510PF	5%	50V
C115	1-123-328-00	ELECT	4.7MF	20%	25V
C117	1-101-006-00	CERAMIC	0.047MF		50V
C118	1-102-958-00	CERAMIC	20PF	5%	50V
C119	1-102-958-00	CERAMIC	20PF	5%	50V
C122	1-101-006-00	CERAMIC	0.047MF		50V
C123	1-102-513-00	CERAMIC	18PF	5%	50V
C124	1-102-958-00	CERAMIC	20PF	5%	50V
C125	1-102-958-00	CERAMIC	20PF	5%	50V
C126	1-102-114-00	CERAMIC	470PF	10%	50V

CONNECTOR

Ref.No.	Part No.	Description
CN001♠:	1-508-848-00	PIN, CONNECTOR 6P
CN002♠:	1-564-030-00	PIN, CONNECTOR 5P
CN003♠:	1-564-028-00	PIN, CONNECTOR 3P

DIODE

Ref.No.	Part No.	Description	Remark
D001	8-719-911-19	DIODE 1SS119	
D002	8-719-911-19	DIODE 1SS119	
D003	8-719-911-19	DIODE 1SS119	
D004	8-719-911-19	DIODE 1SS119	
D005	8-719-000-12	DIODE MC931	
D007	8-719-911-19	DIODE 1SS119	
D008	8-719-911-19	DIODE 1SS119	
D010	8-719-911-19	DIODE 1SS119	
D011	8-719-911-19	DIODE 1SS119	
D012	8-719-100-69	DIODE RD13EB3	

DELAY LINE

Ref.No.	Part No.	Description	Remark
DL001	1-415-312-00	DELAY LINE (1H)	

IC

Ref.No.	Part No.	Description	Remark
IC001	8-758-620-00	IC CX-862	
IC002	8-751-340-00	IC CX-134A	
IC003	8-759-608-64	IC CX-864	
IC004	8-751-350-00	IC CX-135	

COIL

Ref.No.	Part No.	Description	Remark
L001	1-408-429-00	MICRO INDUCTOR 470UH	
L002	1-408-878-21	MICRO INDUCTOR 0.33UH	
L003	1-408-878-21	MICRO INDUCTOR 0.33UH	
L004	1-408-421-00	MICRO INDUCTOR 100UH	
L005	1-408-425-00	MICRO INDUCTOR 220UH	
L006	1-408-425-00	MICRO INDUCTOR 220UH	
L007	1-407-502-00	MICRO INDUCTOR 6.8MMH	
L008	1-407-502-00	MICRO INDUCTOR 6.8MMH	
L009	1-408-414-00	MICRO INDUCTOR 27UH	
L010	1-408-414-00	MICRO INDUCTOR 27UH	
L012	1-407-717-00	MICRO INDUCTOR 1MMH	
L014	1-408-410-00	MICRO INDUCTOR 12UH	
L015	1-408-423-00	MICRO INDUCTOR 150UH	
L017	1-408-423-00	MICRO INDUCTOR 150UH	
L018	1-408-415-00	MICRO INDUCTOR 33UH	
L019	1-408-421-00	MICRO INDUCTOR 100UH	
L020	1-408-412-00	MICRO INDUCTOR 18UH	
L021	1-408-412-00	MICRO INDUCTOR 18UH	
L022	1-408-422-00	MICRO INDUCTOR 120UH	
L023	1-408-424-00	MICRO INDUCTOR 180UH	
L024	1-408-422-00	MICRO INDUCTOR 120UH	
L025	1-408-422-00	MICRO INDUCTOR 120UH	
L026	1-408-424-00	MICRO INDUCTOR 180UH	
L027	1-408-422-00	MICRO INDUCTOR 120UH	
L028	1-408-423-00	MICRO INDUCTOR 150UH	
L029	1-408-416-00	MICRO INDUCTOR 39UH	
L030	1-408-416-00	MICRO INDUCTOR 39UH	
L031	1-408-421-00	MICRO INDUCTOR 100UH	
L032	1-408-411-00	MICRO INDUCTOR 15UH	
L033	1-408-423-00	MICRO INDUCTOR 150UH	

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description	Remark
L034	1-408-417-00	MICRO INDUCTOR 47UH	
L035	1-408-416-00	MICRO INDUCTOR 39UH	
L036	1-407-170-XX	MICRO INDUCTOR 120UH	

TRANSISTOR

Ref.No.	Part No.	Description	Remark
Q001	=>8-729-245-83	TRANSISTOR 2SC2458	
Q002	8-729-117-54	TRANSISTOR 2SA1175	
Q003	=>8-729-245-83	TRANSISTOR 2SC2458	
Q004	=>8-729-245-83	TRANSISTOR 2SC2458	
Q005	=>8-729-245-83	TRANSISTOR 2SC2458	
Q006	=>8-729-245-83	TRANSISTOR 2SC2458	
Q008	8-729-384-48	TRANSISTOR 2SA844	
Q009	8-729-603-50	TRANSISTOR 2SC403SP	
Q010	8-729-603-50	TRANSISTOR 2SC403SP	
Q011	8-729-384-48	TRANSISTOR 2SA844	
Q012	8-729-603-50	TRANSISTOR 2SC403SP	
Q013	8-729-603-50	TRANSISTOR 2SC403SP	
Q014	8-729-603-50	TRANSISTOR 2SC403SP	
Q015	8-729-384-48	TRANSISTOR 2SA844	
Q016	8-729-603-50	TRANSISTOR 2SC403SP	
Q017	8-729-384-48	TRANSISTOR 2SA844	
Q018	8-729-603-50	TRANSISTOR 2SC403SP	
Q019	8-729-603-50	TRANSISTOR 2SC403SP	
Q021	8-729-603-50	TRANSISTOR 2SC403SP	
Q022	8-729-603-50	TRANSISTOR 2SC403SP	
Q023	8-729-603-50	TRANSISTOR 2SC403SP	
Q024	8-729-603-50	TRANSISTOR 2SC403SP	
Q025	8-729-384-48	TRANSISTOR 2SA844	
Q028	8-729-384-48	TRANSISTOR 2SA844	
Q029	8-729-384-48	TRANSISTOR 2SA844	
Q033	8-729-384-48	TRANSISTOR 2SA844	
Q034	8-729-603-50	TRANSISTOR 2SC403SP	
Q035	8-729-603-50	TRANSISTOR 2SC403SP	
Q036	8-729-603-50	TRANSISTOR 2SC403SP	
Q037	8-729-603-50	TRANSISTOR 2SC403SP	

RESISTOR

Ref.No.	Part No.	Description				Remark
R001	1-247-819-00	CARBON	330	5%	1/6W	
R002	1-247-783-00	CARBON	10	5%	1/6W	
R003	1-247-819-00	CARBON	330	5%	1/6W	
R004	1-247-783-00	CARBON	10	5%	1/6W	
R005	1-247-863-00	CARBON	22K	5%	1/6W	
R006	1-247-855-00	CARBON	10K	5%	1/6W	
R007	1-247-852-00	CARBON	7.5K	5%	1/6W	
R008	1-247-855-00	CARBON	10K	5%	1/6W	
R009	1-247-844-00	CARBON	3.6K	5%	1/6W	
R010	1-247-867-00	CARBON	33K	5%	1/6W	
R011	1-247-807-00	CARBON	100	5%	1/6W	
R012	1-247-855-00	CARBON	10K	5%	1/6W	
R013	1-247-855-00	CARBON	10K	5%	1/6W	
R014	1-247-831-00	CARBON	1K	5%	1/6W	
R015	1-247-827-00	CARBON	680	5%	1/6W	
R016	1-247-827-00	CARBON	680	5%	1/6W	
R017	1-247-835-00	CARBON	1.5K	5%	1/6W	
R018	1-247-835-00	CARBON	1.5K	5%	1/6W	
R019	1-247-844-00	CARBON	3.6K	5%	1/6W	
R020	1-247-844-00	CARBON	3.6K	5%	1/6W	
R021	1-247-831-00	CARBON	1K	5%	1/6W	
R022	1-247-867-00	CARBON	33K	5%	1/6W	
R023	1-247-871-00	CARBON	47K	5%	1/6W	
R024	1-247-847-00	CARBON	4.7K	5%	1/6W	
R025	1-247-847-00	CARBON	4.7K	5%	1/6W	
R026	1-247-855-00	CARBON	10K	5%	1/6W	
R027	1-247-847-00	CARBON	4.7K	5%	1/6W	
R028	1-247-855-00	CARBON	10K	5%	1/6W	
R029	1-247-824-00	CARBON	510	5%	1/6W	
R030	1-247-824-00	CARBON	510	5%	1/6W	
R031	1-247-779-00	CARBON	6.8	5%	1/6W	
R032	1-247-822-00	CARBON	430	5%	1/6W	
R033	1-247-815-00	CARBON	220	5%	1/6W	
R034 ⚠	1-212-855-00	FUSIBLE	8.2	5%	1/4W	F
R035	1-247-839-00	CARBON	2.2K	5%	1/6W	
R036	1-247-839-00	CARBON	2.2K	5%	1/6W	
R037	1-247-831-00	CARBON	1K	5%	1/6W	
R038	1-247-831-00	CARBON	1K	5%	1/6W	
R039	1-247-839-00	CARBON	2.2K	5%	1/6W	
R040	1-247-839-00	CARBON	2.2K	5%	1/6W	
R041	1-247-833-00	CARBON	1.2K	5%	1/6W	
R042 ⚠	1-212-855-00	FUSIBLE	8.2	5%	1/4W	F
R043	1-247-847-00	CARBON	4.7K	5%	1/6W	
R044	1-247-849-00	CARBON	5.6K	5%	1/6W	
R045	1-247-849-00	CARBON	5.6K	5%	1/6W	
R046	1-247-809-00	CARBON	120	5%	1/6W	
R047	1-247-844-00	CARBON	3.6K	5%	1/6W	
R048	1-247-839-00	CARBON	2.2K	5%	1/6W	
R049	1-247-814-00	CARBON	200	5%	1/6W	
R050	1-247-840-00	CARBON	2.4K	5%	1/6W	
R051	1-247-818-00	CARBON	300	5%	1/6W	
R052	1-247-834-00	CARBON	1.3K	5%	1/6W	
R053	1-247-830-00	CARBON	910	5%	1/6W	
R054	1-247-835-00	CARBON	1.5K	5%	1/6W	
R055	1-247-855-00	CARBON	10K	5%	1/6W	
R056	1-247-836-00	CARBON	1.6K	5%	1/6W	
R057	1-247-849-00	CARBON	5.6K	5%	1/6W	
R058	1-247-832-00	CARBON	1.1K	5%	1/6W	
R059	1-247-837-00	CARBON	1.8K	5%	1/6W	
R060	1-247-814-00	CARBON	200	5%	1/6W	
R061	1-247-839-00	CARBON	2.2K	5%	1/6W	
R062	1-247-810-00	CARBON	130	5%	1/6W	
R063	1-247-825-00	CARBON	560	5%	1/6W	
R064	1-247-839-00	CARBON	2.2K	5%	1/6W	
R065	1-247-842-00	CARBON	3K	5%	1/6W	
R066	1-247-821-00	CARBON	390	5%	1/6W	
R067	1-247-863-00	CARBON	22K	5%	1/6W	
R068	1-247-863-00	CARBON	22K	5%	1/6W	
R069	1-247-819-00	CARBON	330	5%	1/6W	
R071	1-247-812-00	CARBON	160	5%	1/6W	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

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Ref.No.	Part No.	Description				Remark
R072	1-247-831-00	CARBON	1K	5%	1/6W	
R073	1-247-855-00	CARBON	10K	5%	1/6W	
R074	1-247-832-00	CARBON	1.1K	5%	1/6W	
R075	1-247-832-00	CARBON	1.1K	5%	1/6W	
R077	1-247-859-00	CARBON	15K	5%	1/6W	
R078	1-247-855-00	CARBON	10K	5%	1/6W	
R079	1-247-842-00	CARBON	3K	5%	1/6W	
R080	1-247-867-00	CARBON	33K	5%	1/6W	
R081	1-247-824-00	CARBON	510	5%	1/6W	
R082	1-247-838-00	CARBON	2K	5%	1/6W	
R086	1-247-811-00	CARBON	150	5%	1/6W	
R087	1-247-866-00	CARBON	30K	5%	1/6W	
R088	1-247-844-00	CARBON	3.6K	5%	1/6W	
R089	1-247-847-00	CARBON	4.7K	5%	1/6W	
R090	1-247-831-00	CARBON	1K	5%	1/6W	
R091	1-247-883-00	CARBON	150K	5%	1/6W	
R092	1-247-867-00	CARBON	33K	5%	1/6W	
R095	1-247-869-00	CARBON	39K	5%	1/6W	
R096	1-247-807-00	CARBON	100	5%	1/6W	
R099	1-247-849-00	CARBON	5.6K	5%	1/6W	
R100	1-247-817-00	CARBON	270	5%	1/6W	
R101	1-247-817-00	CARBON	270	5%	1/6W	
R102	1-247-861-00	CARBON	18K	5%	1/6W	
R103	1-247-824-00	CARBON	510	5%	1/6W	
R104	1-247-883-00	CARBON	150K	5%	1/6W	
R105	1-247-838-00	CARBON	2K	5%	1/6W	
R106	1-247-835-00	CARBON	1.5K	5%	1/6W	
R108	1-247-837-00	CARBON	1.8K	5%	1/6W	
R109	1-247-837-00	CARBON	1.8K	5%	1/6W	
R110	1-247-849-00	CARBON	5.6K	5%	1/6W	
R111	1-247-879-00	CARBON	100K	5%	1/6W	
R112	1-247-827-00	CARBON	680	5%	1/6W	
R113	1-247-831-00	CARBON	1K	5%	1/6W	
R115	1-247-833-00	CARBON	1.2K	5%	1/6W	
R116	1-247-826-00	CARBON	620	5%	1/6W	
R117	1-247-826-00	CARBON	620	5%	1/6W	
R118	1-247-837-00	CARBON	1.8K	5%	1/6W	
R119	1-247-837-00	CARBON	1.8K	5%	1/6W	
R122	1-247-823-00	CARBON	470	5%	1/6W	
R123	1-247-824-00	CARBON	510	5%	1/6W	
R126	1-247-845-00	CARBON	3.9K	5%	1/6W	
R134	1-247-869-00	CARBON	39K	5%	1/6W	
R135	1-247-866-00	CARBON	30K	5%	1/6W	
R136	1-247-831-00	CARBON	1K	5%	1/6W	
R137	1-247-831-00	CARBON	1K	5%	1/6W	
R138	1-247-835-00	CARBON	1.5K	5%	1/6W	
R139	1-247-831-00	CARBON	1K	5%	1/6W	
R140	1-247-831-00	CARBON	1K	5%	1/6W	
R141	1-247-831-00	CARBON	1K	5%	1/6W	
R150	1-247-874-00	CARBON	62K	5%	1/6W	
R151	1-247-874-00	CARBON	62K	5%	1/6W	
R152	1-247-890-00	CARBON	300K	5%	1/6W	
R153	1-247-811-00	CARBON	150	5%	1/6W	
R154	1-247-834-00	CARBON	1.3K	5%	1/6W	
R155	1-247-837-00	CARBON	1.8K	5%	1/6W	
R156	1-247-817-00	CARBON	270	5%	1/6W	
R157	1-247-811-00	CARBON	150	5%	1/6W	
R158	1-247-829-00	CARBON	820	5%	1/6W	
R159	1-247-839-00	CARBON	2.2K	5%	1/6W	
R160	1-247-821-00	CARBON	390	5%	1/6W	
R162	1-247-831-00	CARBON	1K	5%	1/6W	
R163	1-247-863-00	CARBON	22K	5%	1/6W	
R164	1-247-863-00	CARBON	22K	5%	1/6W	
R165	1-247-834-00	CARBON	1.3K	5%	1/6W	
R166	1-247-807-00	CARBON	100	5%	1/6W	
R167	1-247-834-00	CARBON	1.3K	5%	1/6W	
R169	1-247-812-00	CARBON	160	5%	1/6W	
R170	1-247-819-00	CARBON	330	5%	1/6W	
R171	1-247-831-00	CARBON	1K	5%	1/6W	
R172	1-247-855-00	CARBON	10K	5%	1/6W	
R173	1-247-839-00	CARBON	2.2K	5%	1/6W	
R177	1-247-831-00	CARBON	1K	5%	1/6W	
R178	1-247-825-00	CARBON	560	5%	1/6W	
R179	1-247-857-00	CARBON	12K	5%	1/6W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description	Remark
RV001	1-226-847-00	RES, ADJ, CARBON 1K	
RV002	1-226-848-00	RES, ADJ, CARBON 2.2K	
RV003	1-228-991-00	RES, ADJ, METAL GLAZE 2.2K	
RV004	1-228-991-00	RES, ADJ, METAL GLAZE 2.2K	
RV005	1-228-746-00	RES, ADJ, CARBON 2.2K	
RV006	1-228-753-00	RES, ADJ, CARBON 470K	
RV007	1-228-745-00	RES, ADJ, CARBON 1K	
RV008	1-226-851-00	RES, ADJ, CARBON 10K	
RV009	1-228-750-00	RES, ADJ, CARBON 47K	
RV010	1-228-750-00	RES, ADJ, CARBON 47K	
RV011	1-228-994-00	RES, ADJ, METAL GLAZE 10K	
RV012	1-228-991-00	RES, ADJ, METAL GLAZE 2.2K	
RV013	1-228-745-00	RES, ADJ, CARBON 1K	
RV014	1-226-850-00	RES, ADJ, CARBON 4.7K	

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description			Remark
	♠:A-6711-466-A	YC-25 BOARD, COMPLETE (AEP MODEL) **********************************			
	♠:A-6711-470-A	YC-25 BOARD, COMPLETE (UK MODEL) *********************************			
	1-536-796-21	TERMINAL BOARD, CONTROL PANEL			
		FILTER			
BPF001	1-235-098-00	FILTER, BAND PASS			
		CAPACITOR			
C001	1-102-953-00	CERAMIC	18PF	5%	50V
C002	1-101-004-00	CERAMIC	0.01MF		50V
C003	1-102-525-00	CERAMIC	68PF	5%	50V
C004	1-102-525-00	CERAMIC	68PF	5%	50V
C005	1-102-110-00	CERAMIC	220PF	10%	50V
C006	1-101-004-00	CERAMIC	0.01MF		50V
C007	1-161-021-00	CERAMIC	0.047MF	10%	25V
C008	1-123-356-00	ELECT	10MF	20%	16V
C009	1-123-356-00	ELECT	10MF	20%	25V
C010	1-123-356-00	ELECT	10MF	20%	25V
C011	1-123-379-00	ELECT	0.47MF	20%	50V
C012	1-123-379-00	ELECT	0.47MF	20%	50V
C013	1-108-603-00	MYLAR	0.1MF	5%	50V
C014	1-123-382-00	ELECT	3.3MF	20%	50V
C015	1-101-004-00	CERAMIC	0.01MF		50V
C016	1-101-974-00	CERAMIC	20PF	5%	50V
C017	1-101-006-00	CERAMIC	0.047MF		50V
C018	1-101-006-00	CERAMIC	0.047MF		50V
C019	1-101-004-00	CERAMIC	0.01MF		50V
C021	1-101-003-00	CERAMIC	0.0047MF		50V
C022	1-123-380-00	ELECT	1MF	20%	50V
C023	1-101-004-00	CERAMIC	0.01MF		50V
C031	1-101-004-00	CERAMIC	0.01MF		50V
C032	1-101-004-00	CERAMIC	0.01MF		50V
C033	1-101-005-00	CERAMIC	0.022MF		50V
C034	1-102-113-00	CERAMIC	390PF	10%	50V
C035	1-101-004-00	CERAMIC	0.01MF		50V
C036	1-161-021-00	CERAMIC	0.047MF	10%	25V
C037	1-123-318-00	ELECT	33MF	20%	16V
C039	1-101-004-00	CERAMIC	0.01MF		50V
C041	1-101-004-00	CERAMIC	0.01MF		50V
C043	1-102-508-00	CERAMIC	10PF	0.5PF	50V
C044	1-161-025-00	CERAMIC	0.1MF	10%	25V
C045	1-161-025-00	CERAMIC	0.1MF	10%	25V
C046	1-123-382-00	ELECT	3.3MF	20%	50V
C047	1-101-005-00	CERAMIC	0.022MF		50V
C048	1-101-004-00	CERAMIC	0.01MF		50V
C049	1-101-004-00	CERAMIC	0.01MF		50V
C050	1-101-004-00	CERAMIC	0.01MF		50V
C051	1-123-332-00	ELECT	47MF	20%	16V
C052	1-101-001-00	CERAMIC	0.001MF		50V
C053	1-101-006-00	CERAMIC	0.047MF		50V
C054	1-123-333-00	ELECT	100MF	20%	16V
C055	1-123-318-00	ELECT	33MF	20%	16V
C056	1-101-001-00	CERAMIC	0.001MF		50V
C057	1-131-341-00	ELECT(SOLID)	0.1MF	10%	25V
C058	1-101-005-00	CERAMIC	0.022MF		50V
C059	1-123-356-00	ELECT	10MF	20%	16V
C060	1-123-330-00	ELECT	22MF	20%	16V
C061	1-102-512-00	CERAMIC	16PF	5%	50V
C062	1-101-005-00	CERAMIC	0.022MF		50V
C064	1-101-001-00	CERAMIC	0.001MF		50V
C070	1-101-006-00	CERAMIC	0.047MF		50V
C071	1-101-004-00	CERAMIC	0.01MF		50V
C072	1-101-005-00	CERAMIC	0.022MF		50V
C073	1-101-004-00	CERAMIC	0.01MF		50V
C074	1-101-004-00	CERAMIC	0.01MF		50V
C075	1-101-004-00	CERAMIC	0.01MF		50V
C076	1-101-004-00	CERAMIC	0.01MF		50V
C077	1-101-006-00	CERAMIC	0.047MF		50V
C078	1-123-318-00	ELECT	33MF	20%	16V
C079	1-101-004-00	CERAMIC	0.01MF		50V
C080	1-102-947-00	CERAMIC	10PF	5%	50V
C081	1-102-529-00	CERAMIC	100PF	5%	50V
C082	1-101-004-00	CERAMIC	0.01MF		50V
C083	1-101-004-00	CERAMIC	0.01MF		50V
C084	1-101-004-00	CERAMIC	0.01MF		50V
C085	1-101-004-00	CERAMIC	0.01MF		50V
C086	1-102-979-00	CERAMIC	240PF	5%	50V
C087	1-101-006-00	CERAMIC	0.047MF		50V
C088	1-101-006-00	CERAMIC	0.047MF		50V
C089	1-102-947-00	CERAMIC	10PF	5%	50V
C090	1-102-947-00	CERAMIC	10PF	5%	50V
C092	1-101-004-00	CERAMIC	0.01MF		50V
C093	1-101-004-00	CERAMIC	0.01MF		50V
C094	1-102-129-00	CERAMIC	0.01MF	10%	50V
C095	1-102-523-00	CERAMIC	56PF	5%	50V
C096	1-102-529-00	CERAMIC	100PF	5%	50V
C097	1-102-529-00	CERAMIC	100PF	5%	50V
C098	1-102-530-00	CERAMIC	120PF	5%	50V
C099	1-101-004-00	CERAMIC	0.01MF		50V
C100	1-101-006-00	CERAMIC	0.047MF		50V
C101	1-123-356-00	ELECT	10MF	20%	16V
C102	1-102-531-00	CERAMIC	150PF	5%	50V
C103	1-108-555-00	MYLAR	0.001MF	5%	50V
C104	1-108-555-00	MYLAR	0.001MF	5%	50V
C105	1-102-947-00	CERAMIC	10PF	5%	50V
C106	1-123-306-00	ELECT	47MF	20%	10V
C107	1-101-880-00	CERAMIC	47PF	5%	50V
C108	1-123-328-00	ELECT	4.7MF	20%	25V
C109	1-161-025-00	CERAMIC	0.1MF	10%	25V
C110	1-102-973-00	CERAMIC	100PF	5%	50V
C111	1-161-025-00	CERAMIC	0.1MF	10%	25V
C112	1-108-595-00	MYLAR	0.047MF	5%	50V

When indicating parts by reference number, please include the board name.

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Ref.No.	Part No.	Description			Remark
C113	1-101-059-00	CERAMIC	510PF	5%	50V
C114	1-102-114-00	CERAMIC	470PF	10%	50V
C115	1-102-977-00	CERAMIC	200PF	5%	50V
C116	1-102-114-00	CERAMIC	470PF	10%	50V
C117	1-123-328-00	ELECT	4.7MF	20%	25V
C118	1-123-356-00	ELECT	10MF	20%	16V
C119	1-123-356-00	ELECT	10MF	20%	16V
C120	1-123-318-00	ELECT	33MF	20%	16V
C121	1-123-318-00	ELECT	33MF	20%	16V
C122	1-123-328-00	ELECT	4.7MF	20%	25V
C123	1-123-328-00	ELECT	4.7MF	20%	25V
C124	1-101-004-00	CERAMIC	0.01MF		50V
C125	1-101-006-00	CERAMIC	0.047MF		50V
C126	1-101-884-00	CERAMIC	56PF	5%	50V
C127	1-101-006-00	CERAMIC	0.047MF		50V
C128	1-101-006-00	CERAMIC	0.047MF		50V
C129	1-102-960-00	CERAMIC	24PF	5%	50V
C130	1-101-004-00	CERAMIC	0.01MF		50V
C131	1-101-006-00	CERAMIC	0.047MF		50V
C132	1-101-884-00	CERAMIC	56PF	5%	50V
C133	1-102-937-00	CERAMIC	4PF	0.25PF	50V
C134	1-101-004-00	CERAMIC	0.01MF		50V
C135	1-101-004-00	CERAMIC	0.01MF		50V
C136	1-123-380-00	ELECT	1MF	20%	50V
C137	1-108-569-00	MYLAR	0.0039MF	5%	50V
C138	1-123-356-00	ELECT	10MF	20%	16V
C139	1-123-332-00	ELECT	47MF	20%	16V
C140	1-101-006-00	CERAMIC	0.047MF		50V
C141	1-123-318-00	ELECT	33MF	20%	16V
C142	1-101-005-00	CERAMIC	0.022MF		50V
C143	1-123-333-00	ELECT	100MF	20%	16V
C144	1-101-004-00	CERAMIC	0.01MF		50V
C145	1-161-025-00	CERAMIC	0.1MF	10%	25V
C147	1-123-330-00	ELECT	22MF	20%	16V
C148	1-123-356-00	ELECT	10MF	20%	25V
C150	1-123-356-00	ELECT	10MF	20%	16V
C151	1-123-311-00	ELECT	1000MF	20%	10V
C154	1-123-356-00	ELECT	10MF	20%	16V
C155	1-123-311-00	ELECT	1000MF	20%	10V
C156	1-123-330-00	ELECT	22MF	20%	16V
C157	1-123-356-00	ELECT	10MF	20%	16V
C158	1-123-356-00	ELECT	10MF	20%	16V
C159	1-123-356-00	ELECT	10MF	20%	16V
C160	1-123-311-00	ELECT	1000MF	20%	10V
C161	1-123-356-00	ELECT	10MF	20%	16V
C162	1-161-021-00	CERAMIC	0.047MF	10%	25V
C163	1-101-004-00	CERAMIC	0.01MF		50V
C164	1-101-006-00	CERAMIC	0.047MF		50V
C165	1-123-356-00	ELECT	10MF	20%	16V
C166	1-123-330-00	ELECT	22MF	20%	16V
C167	1-101-006-00	CERAMIC	0.047MF		50V
C168	1-123-356-00	ELECT	10MF	20%	16V
C170	1-102-904-00	CERAMIC	110PF	5%	50V

Ref.No.	Part No.	Description			Remark
C301	1-101-004-00	CERAMIC	0.01MF		50V
C303	1-123-328-00	ELECT	4.7MF	20%	25V
C305	1-161-021-00	CERAMIC	0.047MF	10%	25V
C307	1-123-356-00	ELECT	10MF	20%	16V
C308	1-161-021-00	CERAMIC	0.047MF	10%	25V
C309	1-161-021-00	CERAMIC	0.047MF	10%	25V
C310	1-161-021-00	CERAMIC	0.047MF	10%	25V
C311	1-161-021-00	CERAMIC	0.047MF	10%	25V
C312	1-161-021-00	CERAMIC	0.047MF	10%	25V
C314	1-102-978-00	CERAMIC	220PF	5%	50V
C315	1-101-004-00	CERAMIC	0.01MF		50V
C316	1-101-004-00	CERAMIC	0.01MF		50V
C317	1-102-520-00	CERAMIC	39PF	5%	50V
C318	1-101-006-00	CERAMIC	0.047MF		50V
C319	1-123-332-00	ELECT	47MF	20%	16V
C320	1-123-333-00	ELECT	100MF	20%	16V

FILTER

CF001	1-527-874-00	FILTER, CERAMIC
CF002	1-527-875-00	FILTER, CERAMIC

CONNECTOR

CN001	♠:1-564-032-00	PIN, CONNECTOR 7P
CN002	♠:1-564-033-00	PIN, CONNECTOR 8P
CN003	♠:1-560-891-00	PIN, CONNECTOR 3P
CN004	♠:1-560-895-00	PIN, CONNECTOR 7P
CN005	♠:1-560-893-00	PIN, CONNECTOR 5P
CN006	♠:1-560-892-00	PIN, CONNECTOR 4P (UK MODEL)
	♠:1-560-894-41	PIN, CONNECTOR 6P (AEP MODEL)
CN007	♠:1-560-896-00	PIN, CONNECTOR 8P
CN008	♠:1-560-895-00	PIN, CONNECTOR 7P
CN009	1-507-840-00	JACK, MINIATURE
CN010	1-562-121-00	CONNECTOR, DIN 6P

TRIMMER

CV001	1-141-275-00	CAP, TRIMMER

DIODE

D001	=>8-719-911-19	DIODE 1SS119
D004	8-719-100-34	DIODE RD5.6EB1
D005	8-719-000-12	DIODE MC931
D009	8-719-000-06	DIODE MC921
D013	=>8-719-911-19	DIODE 1SS119
D016	=>8-719-911-19	DIODE 1SS119
D017	=>8-719-911-19	DIODE 1SS119
D018	=>8-719-911-19	DIODE 1SS119
D019	=>8-719-911-19	DIODE 1SS119
D020	=>8-719-911-19	DIODE 1SS119
D022	=>8-719-911-19	DIODE 1SS119
D023	=>8-719-911-19	DIODE 1SS119
D024	=>8-719-911-19	DIODE 1SS119
D025	=>8-719-911-19	DIODE 1SS119
D027	8-719-200-02	DIODE 10E-2
D028	8-719-100-56	DIODE RD10EB1

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description	Remark
D031	=>8-719-911-19	DIODE 1SS119	
D032	=>8-719-911-19	DIODE 1SS119	
D035	=>8-719-911-19	DIODE 1SS119	
D036	=>8-719-911-19	DIODE 1SS119	
D037	=>8-719-911-19	DIODE 1SS119	

DELAY LINE

Ref.No.	Part No.	Description	Remark
DL001	1-415-282-00	DELAY LINE	
DL002	1-415-313-00	DELAY LINE (1H)	

IC

Ref.No.	Part No.	Description	Remark
IC001	8-758-691-00	IC CX-869A	
IC002	8-759-208-94	IC CX-894	
IC003	8-759-608-82	IC CX-882	
IC004	8-752-000-80	IC CX20008	
IC005	8-757-945-00	IC CX-7945	
IC006	8-759-600-08	IC CX-870A	
IC009	8-759-208-94	IC CX-894	
IC010	8-759-273-20	IC TA7320P	
IC011	8-759-240-13	IC TC4013BP	
IC012	8-759-240-69	IC TC4069UBP	
IC013	8-759-208-67	IC CX-867	
IC014	8-759-908-68	IC CX-868	
IC015	8-750-000-74	IC CX20061	
IC016	8-759-979-26	IC CX-7926	

COIL

Ref.No.	Part No.	Description	Remark
L001	1-408-420-00	MICRO INDUCTOR 82UH	
L002	1-408-427-00	MICRO INDUCTOR 330UH	
L003	1-407-503-00	MICRO INDUCTOR 8.2MMH	
L004	1-408-408-00	MICRO INDUCTOR 8.2UH	
L005	1-408-429-00	MICRO INDUCTOR 470UH	
L006	1-407-503-00	MICRO INDUCTOR 8.2MMH	
L007	1-408-412-00	MICRO INDUCTOR 18UH	
L008	1-408-426-00	MICRO INDUCTOR 270UH	
L009	1-408-429-00	MICRO INDUCTOR 470UH	
L010	1-407-503-00	MICRO INDUCTOR 8.2MMH	
L011	1-408-408-00	MICRO INDUCTOR 8.2UH	
L012	1-408-406-00	MICRO INDUCTOR 5.6UH	
L013	1-407-496-00	MICRO INDUCTOR 2.2MMH	
L014	1-407-500-00	MICRO INDUCTOR 4.7MMH	
L015	1-407-163-XX	MICRO INDUCTOR 33UH	

FILTER

Ref.No.	Part No.	Description	Remark
LPF001	1-235-097-00	FILTER, LOW PASS	

VARIABLE COIL

Ref.No.	Part No.	Description	Remark
LV002	1-408-512-00	COIL (VARIABLE)	

VOLUME BLOCK

Ref.No.	Part No.	Description	Remark
PS001⚠	1-532-685-00	LINK, IC	

TRANSISTOR

Ref.No.	Part No.	Description	Remark
Q001	=>8-729-245-83	TRANSISTOR 2SC2458	
Q002	=>8-729-245-83	TRANSISTOR 2SC2458	
Q003	=>8-729-245-83	TRANSISTOR 2SC2458	
Q006	8-729-603-50	TRANSISTOR 2SC403SP	
Q007	=>8-729-245-83	TRANSISTOR 2SC2458	
Q008	=>8-729-245-83	TRANSISTOR 2SC2458	
Q009	=>8-729-245-83	TRANSISTOR 2SC2458	
Q013	8-729-603-50	TRANSISTOR 2SC403SP	
Q014	8-729-603-50	TRANSISTOR 2SC403SP	
Q015	8-729-603-50	TRANSISTOR 2SC403SP	
Q017	=>8-729-245-83	TRANSISTOR 2SC2458	
Q019	=>8-729-245-83	TRANSISTOR 2SC2458	
Q020	=>8-729-245-83	TRANSISTOR 2SC2458	
Q021	=>8-729-245-83	TRANSISTOR 2SC2458	
Q024	=>8-729-245-83	TRANSISTOR 2SC2458	
Q025	=>8-729-245-83	TRANSISTOR 2SC2458	
Q026	=>8-729-245-83	TRANSISTOR 2SC2458	
Q027	=>8-729-245-83	TRANSISTOR 2SC2458	
Q028	=>8-729-204-83	TRANSISTOR 2SA1048GR	
Q029	=>8-729-245-83	TRANSISTOR 2SC2458	
Q030	=>8-729-245-83	TRANSISTOR 2SC2458	
Q031	=>8-729-245-83	TRANSISTOR 2SC2458	
Q033	=>8-729-204-83	TRANSISTOR 2SA1048GR	
Q034	=>8-729-245-83	TRANSISTOR 2SC2458	
Q035	=>8-729-204-83	TRANSISTOR 2SA1048GR	
Q036	=>8-729-204-83	TRANSISTOR 2SA1048GR	
Q037	=>8-729-204-83	TRANSISTOR 2SA1048GR	
Q038	=>8-729-204-83	TRANSISTOR 2SA1048GR	
Q039	=>8-729-245-83	TRANSISTOR 2SC2458	
Q040	=>8-729-204-83	TRANSISTOR 2SA1048GR	
Q041	=>8-729-245-83	TRANSISTOR 2SC2458	
Q042	=>8-729-245-83	TRANSISTOR 2SC2458	
Q043	=>8-729-245-83	TRANSISTOR 2SC2458	
Q044	=>8-729-245-83	TRANSISTOR 2SC2458	
Q045	=>8-729-245-83	TRANSISTOR 2SC2458	
Q046	=>8-729-245-83	TRANSISTOR 2SC2458	
Q047	=>8-729-245-83	TRANSISTOR 2SC2458	
Q048	=>8-729-245-83	TRANSISTOR 2SC2458	
Q049	=>8-729-204-83	TRANSISTOR 2SA1048GR	
Q050	=>8-729-245-83	TRANSISTOR 2SC2458	
Q051	=>8-729-204-83	TRANSISTOR 2SA1048GR	
Q052	=>8-729-245-83	TRANSISTOR 2SC2458	
Q053	=>8-729-245-83	TRANSISTOR 2SC2458	
Q054	=>8-729-245-83	TRANSISTOR 2SC2458	
Q055	8-729-113-32	TRANSISTOR 2SB733	
Q056	8-729-113-32	TRANSISTOR 2SB733	
Q059	=>8-729-245-83	TRANSISTOR 2SC2458	
Q061	=>8-729-245-83	TRANSISTOR 2SC2458	
Q063	=>8-729-245-83	TRANSISTOR 2SC2458	
Q065	8-729-113-32	TRANSISTOR 2SB733	
Q066	=>8-729-245-83	TRANSISTOR 2SC2458	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

YC-25

Ref.No.	Part No.	Description	Remark
Q068	=>8-729-245-83	TRANSISTOR 2SC2458	
Q069	=>8-729-204-83	TRANSISTOR 2SA1048GR	
Q072	=>8-729-245-83	TRANSISTOR 2SC2458	
		RESISTOR	
R001	1-247-831-00	CARBON 1K 5% 1/6W	
R002	1-247-831-00	CARBON 1K 5% 1/6W	
R003	1-247-821-00	CARBON 390 5% 1/6W	
R004	1-247-835-00	CARBON 1.5K 5% 1/6W	
R005	1-247-855-00	CARBON 10K 5% 1/6W	
R006	1-247-867-00	CARBON 33K 5% 1/6W	
R007	1-247-855-00	CARBON 10K 5% 1/6W	
R008	1-247-831-00	CARBON 1K 5% 1/6W	
R009	1-247-831-00	CARBON 1K 5% 1/6W	
R010	1-247-870-00	CARBON 43K 5% 1/6W	
R011	1-247-865-00	CARBON 27K 5% 1/6W	
R012	1-247-875-00	CARBON 68K 5% 1/6W	
R017	1-247-867-00	CARBON 33K 5% 1/6W	
R018	1-247-873-00	CARBON 56K 5% 1/6W	
R019	1-247-873-00	CARBON 56K 5% 1/6W	
R020	1-247-847-00	CARBON 4.7K 5% 1/6W	
R021	1-247-831-00	CARBON 1K 5% 1/6W	
R022	1-247-873-00	CARBON 56K 5% 1/6W	
R023	1-247-863-00	CARBON 22K 5% 1/6W	
R024	1-247-873-00	CARBON 56K 5% 1/6W	
R025	1-247-871-00	CARBON 47K 5% 1/6W	
R026	1-247-871-00	CARBON 47K 5% 1/6W	
R027	1-247-869-00	CARBON 39K 5% 1/6W	
R028	1-247-871-00	CARBON 47K 5% 1/6W	
R029	1-247-852-00	CARBON 7.5K 5% 1/6W	
R044	1-247-847-00	CARBON 4.7K 5% 1/6W	
R045	1-247-863-00	CARBON 22K 5% 1/6W	
R047	1-247-821-00	CARBON 390 5% 1/6W	
R048	1-247-839-00	CARBON 2.2K 5% 1/6W	
R049	1-247-821-00	CARBON 390 5% 1/6W	
R050	1-247-821-00	CARBON 390 5% 1/6W	
R051	1-247-821-00	CARBON 390 5% 1/6W	
R052	1-247-821-00	CARBON 390 5% 1/6W	
R053	1-247-821-00	CARBON 390 5% 1/6W	
R054	1-247-839-00	CARBON 2.2K 5% 1/6W	
R055	1-247-839-00	CARBON 2.2K 5% 1/6W	
R057	1-247-855-00	CARBON 10K 5% 1/6W	
R059	1-247-855-00	CARBON 10K 5% 1/6W	
R063	1-247-841-00	CARBON 2.7K 5% 1/6W	
R064	1-247-831-00	CARBON 1K 5% 1/6W	
R066	1-247-831-00	CARBON 1K 5% 1/6W	
R067	1-247-886-00	CARBON 200K 5% 1/6W	
R068	1-247-839-00	CARBON 2.2K 5% 1/6W	
R069	1-247-831-00	CARBON 1K 5% 1/6W	
R070	1-247-831-00	CARBON 1K 5% 1/6W	
R071	1-247-858-00	CARBON 13K 5% 1/6W	
R072	1-247-879-00	CARBON 100K 5% 1/6W	
R073	1-247-862-00	CARBON 20K 5% 1/6W	
R074	1-247-863-00	CARBON 22K 5% 1/6W	
R075	1-247-842-00	CARBON 3K 5% 1/6W	
R076	1-247-871-00	CARBON 47K 5% 1/6W	
R077	1-247-839-00	CARBON 2.2K 5% 1/6W	
R078	1-247-839-00	CARBON 2.2K 5% 1/6W	
R079	1-247-839-00	CARBON 2.2K 5% 1/6W	
R080	1-247-864-00	CARBON 24K 5% 1/6W	
R081	1-247-831-00	CARBON 1K 5% 1/6W	
R082	1-247-831-00	CARBON 1K 5% 1/6W	
R083	1-247-847-00	CARBON 4.7K 5% 1/6W	
R084	1-247-855-00	CARBON 10K 5% 1/6W	
R085	1-247-867-00	CARBON 33K 5% 1/6W	
R086	1-247-823-00	CARBON 470 5% 1/6W	
R087	1-247-838-00	CARBON 2K 5% 1/6W	
R088	1-247-875-00	CARBON 68K 5% 1/6W	
R099	1-247-831-00	CARBON 1K 5% 1/6W	
R100	1-247-855-00	CARBON 10K 5% 1/6W	
R101	1-247-866-00	CARBON 30K 5% 1/6W	
R102	1-247-835-00	CARBON 1.5K 5% 1/6W	
R103	1-247-839-00	CARBON 2.2K 5% 1/6W	
R104	1-247-807-00	CARBON 100 5% 1/6W	
R105	1-247-855-00	CARBON 10K 5% 1/6W	
R106	1-247-831-00	CARBON 1K 5% 1/6W	
R107	1-247-821-00	CARBON 390 5% 1/6W	
R108	1-247-821-00	CARBON 390 5% 1/6W	
R109	1-247-831-00	CARBON 1K 5% 1/6W	
R110	1-247-835-00	CARBON 1.5K 5% 1/6W	
R111	1-247-831-00	CARBON 1K 5% 1/6W	
R112	1-247-855-00	CARBON 10K 5% 1/6W	
R113	1-247-863-00	CARBON 22K 5% 1/6W	
R114	1-247-855-00	CARBON 10K 5% 1/6W	
R115	1-247-863-00	CARBON 22K 5% 1/6W	
R116	1-247-867-00	CARBON 33K 5% 1/6W	
R117	1-247-867-00	CARBON 33K 5% 1/6W	
R119	1-247-843-00	CARBON 3.3K 5% 1/6W	
R120	1-247-855-00	CARBON 10K 5% 1/6W	
R121	1-247-855-00	CARBON 10K 5% 1/6W	
R123	1-247-831-00	CARBON 1K 5% 1/6W	
R124	1-247-825-00	CARBON 560 5% 1/6W	
R125	1-247-860-00	CARBON 16K 5% 1/6W	
R126	1-247-873-00	CARBON 56K 5% 1/6W	
R127	1-247-831-00	CARBON 1K 5% 1/6W	
R128	1-247-824-00	CARBON 510 5% 1/6W	
R129	1-247-838-00	CARBON 2K 5% 1/6W	
R130	1-247-838-00	CARBON 2K 5% 1/6W	
R131	1-247-855-00	CARBON 10K 5% 1/6W	
R132	1-247-855-00	CARBON 10K 5% 1/6W	
R133	1-247-843-00	CARBON 3.3K 5% 1/6W	
R134	1-247-855-00	CARBON 10K 5% 1/6W	
R135	1-247-843-00	CARBON 3.3K 5% 1/6W	
R136	1-247-855-00	CARBON 10K 5% 1/6W	
R137	1-247-855-00	CARBON 10K 5% 1/6W	
R138	1-247-855-00	CARBON 10K 5% 1/6W	

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description				Remark
R139	1-247-823-00	CARBON	470	5%	1/6W	
R140	1-247-823-00	CARBON	470	5%	1/6W	
R141	1-247-859-00	CARBON	15K	5%	1/6W	
R142	1-247-864-00	CARBON	24K	5%	1/6W	
R143	1-247-831-00	CARBON	1K	5%	1/6W	
R144	1-247-826-00	CARBON	620	5%	1/6W	
R145	1-247-838-00	CARBON	2K	5%	1/6W	
R146	1-247-844-00	CARBON	3.6K	5%	1/6W	
R147	1-247-824-00	CARBON	510	5%	1/6W	
R148	1-247-824-00	CARBON	510	5%	1/6W	
R149	1-247-824-00	CARBON	510	5%	1/6W	
R150	1-247-824-00	CARBON	510	5%	1/6W	
R151	1-247-855-00	CARBON	10K	5%	1/6W	
R152	1-247-855-00	CARBON	10K	5%	1/6W	
R153	1-247-831-00	CARBON	1K	5%	1/6W	
R154	1-247-855-00	CARBON	10K	5%	1/6W	
R155	1-247-855-00	CARBON	10K	5%	1/6W	
R156	1-247-824-00	CARBON	510	5%	1/6W	
R157	1-247-824-00	CARBON	510	5%	1/6W	
R158	1-247-815-00	CARBON	220	5%	1/6W	
R159	1-247-848-00	CARBON	5.1K	5%	1/6W	
R160	1-247-871-00	CARBON	47K	5%	1/6W	
R161	1-247-855-00	CARBON	10K	5%	1/6W	
R162	1-247-841-00	CARBON	2.7K	5%	1/6W	
R163	1-247-850-00	CARBON	6.2K	5%	1/6W	
R164	1-247-848-00	CARBON	5.1K	5%	1/6W	
R165	1-247-841-00	CARBON	2.7K	5%	1/6W	
R166	1-247-875-00	CARBON	68K	5%	1/6W	
R167	1-247-859-00	CARBON	15K	5%	1/6W	
R168	1-247-831-00	CARBON	1K	5%	1/6W	
R169	1-247-839-00	CARBON	2.2K	5%	1/6W	
R170	1-247-882-00	CARBON	130K	5%	1/6W	
R171	1-247-879-00	CARBON	100K	5%	1/6W	
R172	1-247-895-00	CARBON	470K	5%	1/6W	
R173	1-247-857-00	CARBON	12K	5%	1/6W	
R174	1-247-838-00	CARBON	2K	5%	1/6W	
R175	1-247-869-00	CARBON	39K	5%	1/6W	
R176	1-247-878-00	CARBON	91K	5%	1/6W	
R177	1-247-847-00	CARBON	4.7K	5%	1/6W	
R178	1-247-859-00	CARBON	15K	5%	1/6W	
R179	1-247-855-00	CARBON	10K	5%	1/6W	
R180	1-247-879-00	CARBON	100K	5%	1/6W	
R181	1-247-875-00	CARBON	68K	5%	1/6W	
R182	1-247-855-00	CARBON	10K	5%	1/6W	
R183	1-247-867-00	CARBON	33K	5%	1/6W	
R184	1-247-828-00	CARBON	750	5%	1/6W	
R185	1-247-831-00	CARBON	1K	5%	1/6W	
R186	1-247-830-00	CARBON	910	5%	1/6W	
R187	1-247-853-00	CARBON	8.2K	5%	1/6W	
R188	1-247-855-00	CARBON	10K	5%	1/6W	
R189	1-247-858-00	CARBON	13K	5%	1/6W	
R190	1-247-875-00	CARBON	68K	5%	1/6W	
R191	1-247-882-00	CARBON	130K	5%	1/6W	
R192	1-247-887-00	CARBON	220K	5%	1/6W	
R193	1-247-831-00	CARBON	1K	5%	1/6W	
R194	1-247-831-00	CARBON	1K	5%	1/6W	
R195	1-247-830-00	CARBON	910	5%	1/6W	
R196	1-247-837-00	CARBON	1.8K	5%	1/6W	
R197	1-247-822-00	CARBON	430	5%	1/6W	
R198	1-247-855-00	CARBON	10K	5%	1/6W	
R199	1-247-838-00	CARBON	2K	5%	1/6W	
R200	1-247-873-00	CARBON	56K	5%	1/6W	
R201	1-247-873-00	CARBON	56K	5%	1/6W	
R202	1-247-879-00	CARBON	100K	5%	1/6W	
R203	1-247-879-00	CARBON	100K	5%	1/6W	
R204	1-247-855-00	CARBON	10K	5%	1/6W	
R205	1-247-871-00	CARBON	47K	5%	1/6W	
R206	1-247-879-00	CARBON	100K	5%	1/6W	
R207	1-247-855-00	CARBON	10K	5%	1/6W	
R209	1-247-814-00	CARBON	200	5%	1/6W	
R210	1-247-808-00	CARBON	110	5%	1/6W	
R211	1-247-833-00	CARBON	1.2K	5%	1/6W	
R212	1-247-863-00	CARBON	22K	5%	1/6W	
R213	1-247-839-00	CARBON	2.2K	5%	1/6W	
R214	1-247-863-00	CARBON	22K	5%	1/6W	
R215	1-247-857-00	CARBON	12K	5%	1/6W	
R216	1-247-858-00	CARBON	13K	5%	1/6W	
R217	1-247-855-00	CARBON	10K	5%	1/6W	
R218	1-247-841-00	CARBON	2.7K	5%	1/6W	
R219	1-247-863-00	CARBON	22K	5%	1/6W	
R220	1-247-855-00	CARBON	10K	5%	1/6W	
R221	1-247-855-00	CARBON	10K	5%	1/6W	
R222	1-247-855-00	CARBON	10K	5%	1/6W	
R223	1-247-831-00	CARBON	1K	5%	1/6W	
R224	1-247-831-00	CARBON	1K	5%	1/6W	
R225	1-247-839-00	CARBON	2.2K	5%	1/6W	
R227	1-247-803-00	CARBON	68	5%	1/6W	
R229	1-247-803-00	CARBON	68	5%	1/6W	
R230	1-247-827-00	CARBON	680	5%	1/6W	
R231	1-247-875-00	CARBON	68K	5%	1/6W	
R232	1-247-876-00	CARBON	75K	5%	1/6W	
R234	1-247-862-00	CARBON	20K	5%	1/6W	
R236	1-247-871-00	CARBON	47K	5%	1/6W	
R237	1-247-871-00	CARBON	47K	5%	1/6W	
R238	1-247-831-00	CARBON	1K	5%	1/6W	
R240	1-247-804-00	CARBON	75	5%	1/6W	
R243	1-247-835-00	CARBON	1.5K	5%	1/6W	
R244	1-247-843-00	CARBON	3.3K	5%	1/6W	
R246	1-247-860-00	CARBON	16K	5%	1/6W	
R247	1-247-862-00	CARBON	20K	5%	1/6W	
R248	1-247-818-00	CARBON	300	5%	1/6W	
R249	1-247-838-00	CARBON	2K	5%	1/6W	
R251	1-247-876-00	CARBON	75K	5%	1/6W	
R252	1-247-875-00	CARBON	68K	5%	1/6W	
R253	1-247-818-00	CARBON	300	5%	1/6W	
R258	1-247-844-00	CARBON	3.6K	5%	1/6W	

When indicating parts by reference number, please include the board name.

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Ref.No.	Part No.	Description				Remark
R259	1-247-863-00	CARBON	22K	5%	1/6W	
R260	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R264	1-247-863-00	CARBON	22K	5%	1/6W	
R265	1-247-879-00	CARBON	100K	5%	1/6W	
R266	1-247-818-00	CARBON	300	5%	1/6W	
R267	1-247-838-00	CARBON	2K	5%	1/6W	
R269	1-247-827-00	CARBON	680	5%	1/6W	
R270	1-247-839-00	CARBON	2.2K	5%	1/6W	
R271 ⚠	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R272	1-247-803-00	CARBON	68	5%	1/6W	
R273	1-247-875-00	CARBON	68K	5%	1/6W	
R276	1-247-871-00	CARBON	47K	5%	1/6W	
R278	1-247-855-00	CARBON	10K	5%	1/6W	
R280	1-247-867-00	CARBON	33K	5%	1/6W	
R281	1-247-807-00	CARBON	100	5%	1/6W	
R282	1-247-847-00	CARBON	4.7K	5%	1/6W	
R303	1-247-855-00	CARBON	10K	5%	1/6W	
R304	1-247-831-00	CARBON	1K	5%	1/6W	
R311	1-247-843-00	CARBON	3.3K	5%	1/6W	
R312	1-247-846-00	CARBON	4.3K	5%	1/6W	
R313	1-247-843-00	CARBON	3.3K	5%	1/6W	
R314	1-247-846-00	CARBON	4.3K	5%	1/6W	
R315	1-247-855-00	CARBON	10K	5%	1/6W	
R316	1-247-900-00	CARBON	750K	5%	1/6W	
R318	1-247-889-00	CARBON	270K	5%	1/6W	
R319	1-247-889-00	CARBON	270K	5%	1/6W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description
RV001	1-228-749-00	RES, ADJ, CARBON 22K
RV002	1-228-746-00	RES, ADJ, CARBON 2.2K
RV003	1-228-744-00	RES, ADJ, CARBON 470
RV004	1-228-995-00	RES, ADJ, METAL GLAZE 22K
RV005	1-228-748-00	RES, ADJ, CARBON 10K
RV006	1-228-995-00	RES, ADJ, METAL GLAZE 22K
RV008	1-228-993-00	RES, ADJ, METAL GLAZE 4.7K
RV009	1-228-750-00	RES, ADJ, CARBON 47K
RV010	1-228-750-00	RES, ADJ, CARBON 47K
RV011	1-228-750-00	RES, ADJ, CARBON 47K
RV012	1-228-991-00	RES, ADJ, METAL GLAZE 2.2K
RV013	1-228-989-00	RES, ADJ, METAL GLAZE 470

TRANSFORMER

Ref.No.	Part No.	Description
T001	1-426-093-00	COIL, REC C BPT

CRYSTAL

Ref.No.	Part No.	Description
X001	1-527-345-00	CRYSTAL, OSC

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♠:A-6713-182-A AM-4 BOARD, COMPLETE (AEP MODEL)

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♠:A-6713-183-A AM-4 BOARD, COMPLETE (UK MODEL)

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♠:3-681-225-00 CASE (MAIN), SHIELD, AM

♠:3-681-226-00 LID, UPPER, SHIELD CASE, AM

CAPACITOR

Ref.No.	Part No.	Description				Remark
C501	1-123-380-00	ELECT	1MF	20%	50V	
C502	1-161-002-00	CERAMIC	0.0012MF	10%	25V	
C503	1-161-271-00	CERAMIC	100PF	5%	50V	
C504	1-123-330-00	ELECT	22MF	20%	16V	
C505	1-161-015-00	CERAMIC	0.015MF	10%	25V	
C506	1-123-356-00	ELECT	10MF	20%	16V	
C507	1-123-328-00	ELECT	4.7MF	20%	25V	
C508	1-123-356-00	ELECT	10MF	20%	16V	
C509	1-161-017-00	CERAMIC	0.022MF	10%	25V	
C510	1-123-356-00	ELECT	10MF	20%	16V	
C511	1-123-333-00	ELECT	100MF	20%	16V	
C512	1-123-306-00	ELECT	47MF	20%	10V	
C513	1-123-328-00	ELECT	4.7MF	20%	25V	
C514	1-123-356-00	ELECT	10MF	20%	16V	
C515	1-161-009-00	CERAMIC	0.0047MF	10%	25V	
C516	1-123-356-00	ELECT	10MF	20%	16V	
C517	1-123-356-00	ELECT	10MF	20%	16V	
C518	1-123-356-00	ELECT	10MF	20%	16V	
C519	1-123-356-00	ELECT	10MF	20%	16V	
C520	1-123-356-00	ELECT	10MF	20%	16V	
C521	1-161-323-00	CERAMIC	0.001MF	10%	25V	
C522	1-123-356-00	ELECT	10MF	20%	16V	
C523	1-161-010-00	CERAMIC	0.0056MF	10%	25V	
C524	1-123-356-00	ELECT	10MF	20%	16V	
C525	1-108-593-00	MYLAR	0.039MF	5%	50V	
C526	1-108-555-00	MYLAR	0.001MF	5%	50V	
C527	1-123-607-00	ELECT	0.1MF	20%	50V	
C528	1-108-579-00	MYLAR	0.01MF	5%	50V	
C529	1-108-573-00	MYLAR	0.0056MF	5%	50V	
C530	1-161-494-00	CERAMIC	0.022MF	30%	25V	
C531	1-123-328-00	ELECT	4.7MF	20%	25V	
C532	1-123-295-00	ELECT	100MF	20%	6.3V	
C533	1-123-380-00	ELECT	1MF	20%	50V	
C534	1-161-315-00	CERAMIC	220PF	10%	50V	
C535	1-123-328-00	ELECT	4.7MF	20%	25V	
C536	1-123-381-00	ELECT	2.2MF	20%	50V	
C537	1-123-328-00	ELECT	4.7MF	20%	25V	
C538	1-123-356-00	ELECT	10MF	20%	16V	
C601	1-123-380-00	ELECT	1MF	20%	50V	
C602	1-161-002-00	CERAMIC	0.0012MF	10%	25V	
C603	1-161-271-00	CERAMIC	100PF	5%	50V	
C604	1-123-330-00	ELECT	22MF	20%	16V	
C605	1-161-015-00	CERAMIC	0.015MF	10%	25V	
C606	1-123-356-00	ELECT	10MF	20%	16V	
C607	1-123-328-00	ELECT	4.7MF	20%	25V	
C608	1-123-356-00	ELECT	10MF	20%	16V	
C609	1-161-017-00	CERAMIC	0.022MF	10%	25V	
C610	1-123-356-00	ELECT	10MF	20%	16V	
C611	1-123-333-00	ELECT	100MF	20%	16V	
C612	1-123-306-00	ELECT	47MF	20%	10V	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description			Remark
C613	1-123-328-00	ELECT	4.7MF	20%	25V
C614	1-123-356-00	ELECT	10MF	20%	16V
C615	1-161-009-00	CERAMIC	0.0047MF	10%	25V
C616	1-123-356-00	ELECT	10MF	20%	16V
C617	1-123-356-00	ELECT	10MF	20%	16V
C618	1-123-356-00	ELECT	10MF	20%	16V
C619	1-123-356-00	ELECT	10MF	20%	16V
C620	1-123-356-00	ELECT	10MF	20%	16V
C621	1-161-323-00	CERAMIC	0.001MF	10%	25V
C622	1-123-356-00	ELECT	10MF	20%	16V
C623	1-161-010-00	CERAMIC	0.0056MF	10%	25V
C624	1-123-356-00	ELECT	10MF	20%	16V
C625	1-108-593-00	MYLAR	0.039MF	5%	50V
C626	1-108-555-00	MYLAR	0.001MF	5%	50V
C627	1-123-607-00	ELECT	0.1MF	20%	50V
C628	1-108-579-00	MYLAR	0.01MF	5%	50V
C629	1-108-573-00	MYLAR	0.0056MF	5%	50V
C630	1-161-494-00	CERAMIC	0.022MF	30%	25V
C631	1-123-328-00	ELECT	4.7MF	20%	25V
C632	1-123-295-00	ELECT	100MF	20%	6.3V
C633	1-123-380-00	ELECT	1MF	20%	50V
C634	1-161-315-00	CERAMIC	220PF	10%	50V
C635	1-123-328-00	ELECT	4.7MF	20%	25V
C636	1-123-381-00	ELECT	2.2MF	20%	50V
C637	1-123-328-00	ELECT	4.7MF	20%	25V
C638	1-123-356-00	ELECT	10MF	20%	16V
C701	1-136-215-00	FILM	0.0068MF	10%	400V
C702	1-161-013-00	CERAMIC	0.01MF	10%	25V (AEP MODEL)
	1-161-017-00	CERAMIC	0.022MF	10%	25V (UK MODEL)
C703	1-161-017-00	CERAMIC	0.022MF	10%	25V
C704	1-123-318-00	ELECT	33MF	20%	16V
C705	1-123-332-00	ELECT	47MF	20%	16V
C706	1-123-306-00	ELECT	47MF	20%	10V
C707	1-123-330-00	ELECT	22MF	20%	16V
C708	1-123-380-00	ELECT	1MF	20%	50V
C709	1-123-318-00	ELECT	33MF	20%	16V
C710	1-123-332-00	ELECT	47MF	20%	16V
C711	1-123-332-00	ELECT	47MF	20%	16V
C712	1-123-356-00	ELECT	10MF	20%	16V
C713	1-161-013-00	CERAMIC	0.01MF	10%	25V
C714	1-123-306-00	ELECT	47MF	20%	10V
C715	1-123-356-00	ELECT	10MF	20%	16V
C717	1-123-356-00	ELECT	10MF	20%	16V
C718	1-123-306-00	ELECT	47MF	20%	10V
C719	1-123-356-00	ELECT	10MF	20%	16V
C720	1-161-013-00	CERAMIC	0.01MF	10%	25V
C722	1-123-356-00	ELECT	10MF	20%	16V
C723	1-123-356-00	ELECT	10MF	20%	16V
C724	1-123-356-00	ELECT	10MF	20%	16V
C725	1-123-356-00	ELECT	10MF	20%	16V
C726	1-123-356-00	ELECT	10MF	20%	16V

Ref.No.	Part No.	Description			Remark
C727	1-123-356-00	ELECT	10MF	20%	16V
C728	1-123-306-00	ELECT	47MF	20%	10V
C729	1-123-356-00	ELECT	10MF	20%	16V
C730	1-123-356-00	ELECT	10MF	20%	16V
C731	1-123-306-00	ELECT	47MF	20%	10V
C732	1-123-330-00	ELECT	22MF	20%	16V
C750	1-161-017-00	CERAMIC	0.022MF	10%	25V (UK MODEL)

CONNECTOR

Ref.No.	Part No.	Description	Remark
CN501	♠:1-564-033-21	PIN, CONNECTOR 8P	
CN502	♠:1-564-032-00	PIN, CONNECTOR 7P	
CN503	♠:1-564-030-00	PIN, CONNECTOR 5P	(UK MODEL)
	♠:1-564-031-31	PIN, CONNECTOR 6P	(AEP MODEL)
CN504	♠:1-564-033-31	PIN, CONNECTOR 8P	
CN505	♠:1-564-028-41	PIN, CONNECTOR 3P	

TRIMMER

Ref.No.	Part No.	Description
CV501	1-141-215-00	CAP, TRIMMER
CV601	1-141-215-00	CAP, TRIMMER

DIODE

Ref.No.	Part No.	Description	Remark
D501	8-719-815-55	DIODE 1S1555	
D601	8-719-815-55	DIODE 1S1555	
D701	8-719-815-55	DIODE 1S1555	
D702	8-719-815-55	DIODE 1S1555	
D703	8-719-815-55	DIODE 1S1555	
D704	8-719-815-55	DIODE 1S1555	
D705	=>8-719-100-47	DIODE RD8.2E-B1	
D706	=>8-719-100-47	DIODE RD8.2E-B1	
D707	8-719-100-68	DIODE RD13EB2	
D708	8-719-815-55	DIODE 1S1555	
D709	8-719-815-55	DIODE 1S1555	
D710	8-719-815-55	DIODE 1S1555	(AEP MODEL)
D711	8-719-000-06	DIODE MC921	
D712	8-719-815-55	DIODE 1S1555	
D713	8-719-815-55	DIODE 1S1555	(UK MODEL)

IC

Ref.No.	Part No.	Description
IC501	8-759-800-30	IC LA7040
IC502	8-759-240-53	IC TC4053BP
IC503	8-759-145-58	IC UPC4558C
IC601	8-759-800-30	IC LA7040
IC602	8-759-240-53	IC TC4053BP
IC603	8-759-145-58	IC UPC4558C
IC701	8-759-705-62	IC NJM4562D-D
IC703	8-759-100-08	IC UPC1571C
IC704	8-759-902-15	IC BA3402

COIL

Ref.No.	Part No.	Description
L501	1-408-583-00	MICRO INDUCTOR 33MMH
L601	1-408-583-00	MICRO INDUCTOR 33MMH
L701	1-408-579-00	MICRO INDUCTOR 220UH

When indicating parts by reference number, please include the board name.

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FILTER

Ref.No.	Part No.	Description	Remark
LPF501	1-235-272-00	FILTER, LOW PASS	
LPF601	1-235-272-00	FILTER, LOW PASS	

TRANSISTOR

Ref.No.	Part No.	Description	Remark
Q501	=>8-729-245-83	TRANSISTOR 2SC2458	
Q502	=>8-729-245-83	TRANSISTOR 2SC2458	
Q503	=>8-729-245-83	TRANSISTOR 2SC2458	
Q504	=>8-729-245-83	TRANSISTOR 2SC2458	
Q507	8-729-117-54	TRANSISTOR 2SA1175	
Q508	=>8-729-245-83	TRANSISTOR 2SC2458	
Q509	8-729-117-54	TRANSISTOR 2SA1175	
Q601	=>8-729-245-83	TRANSISTOR 2SC2458	
Q602	=>8-729-245-83	TRANSISTOR 2SC2458	
Q603	=>8-729-245-83	TRANSISTOR 2SC2458	
Q604	=>8-729-245-83	TRANSISTOR 2SC2458	
Q607	8-729-117-54	TRANSISTOR 2SA1175	
Q608	=>8-729-245-83	TRANSISTOR 2SC2458	
Q609	8-729-117-54	TRANSISTOR 2SA1175	
Q701	8-729-967-32	TRANSISTOR 2SC2673	
Q702	8-729-900-89	TRANSISTOR DTC144ES (UK MODEL)	
Q703	8-729-900-89	TRANSISTOR DTC144ES	
Q704	8-729-900-89	TRANSISTOR DTC144ES	
Q705	8-729-900-89	TRANSISTOR DTC144ES	
Q706	8-729-117-54	TRANSISTOR 2SA1175	
Q707	8-729-900-89	TRANSISTOR DTC144ES	
Q708	8-729-245-83	TRANSISTOR 2SC2458 (AEP MODEL)	
	8-729-606-35	TRANSISTOR 2SC2603 (UK MODEL)	
Q709	8-729-967-32	TRANSISTOR 2SC2673	
Q710	8-729-988-12	TRANSISTOR 2SA881	
Q711	8-729-208-42	TRANSISTOR 2SA1184	
Q712	8-729-117-54	TRANSISTOR 2SA1175	

RESISTOR

Ref.No.	Part No.	Description				Remark
R501	1-246-425-00	CARBON	10	5%	1/4W	
R502	1-246-521-00	CARBON	100K	5%	1/4W	
R503	1-246-457-00	CARBON	220	5%	1/4W	
R504	1-246-529-00	CARBON	220K	5%	1/4W	
R505	1-246-499-00	CARBON	12K	5%	1/4W	
R506	1-246-491-00	CARBON	5.6K	5%	1/4W	
R507	1-246-513-00	CARBON	47K	5%	1/4W	
R508	1-246-455-00	CARBON	180	5%	1/4W	
R509	1-246-493-00	CARBON	6.8K	5%	1/4W	
R510	1-247-831-00	CARBON	1K	5%	1/6W	
R511	1-246-465-00	CARBON	470	5%	1/4W	
R512	1-246-485-00	CARBON	3.3K	5%	1/4W	
R513	1-246-491-00	CARBON	5.6K	5%	1/4W	
R514	1-246-489-00	CARBON	4.7K	5%	1/4W	
R515	1-246-505-00	CARBON	22K	5%	1/4W	
R516	1-246-497-00	CARBON	10K	5%	1/4W	
R517	1-246-521-00	CARBON	100K	5%	1/4W	
R519	1-246-531-00	CARBON	270K	5%	1/4W	
R520	1-246-509-00	CARBON	33K	5%	1/4W	
R521	1-246-495-00	CARBON	8.2K	5%	1/4W	
R522	1-246-509-00	CARBON	33K	5%	1/4W	
R523	1-246-485-00	CARBON	3.3K	5%	1/4W	
R524	1-246-491-00	CARBON	5.6K	5%	1/4W	
R525	1-246-489-00	CARBON	4.7K	5%	1/4W	
R526	1-246-513-00	CARBON	47K	5%	1/4W	
R527	1-246-489-00	CARBON	4.7K	5%	1/4W	
R528	1-246-529-00	CARBON	220K	5%	1/4W	
R529	1-246-521-00	CARBON	100K	5%	1/4W	
R530	1-246-529-00	CARBON	220K	5%	1/4W	
R531	1-246-513-00	CARBON	47K	5%	1/4W	
R532	1-246-489-00	CARBON	4.7K	5%	1/4W	
R533	1-246-467-00	CARBON	560	5%	1/4W	
R534	1-246-517-00	CARBON	68K	5%	1/4W	
R536	1-246-503-00	CARBON	18K	5%	1/4W	
R537	1-246-465-00	CARBON	470	5%	1/4W	
R540	1-246-479-00	CARBON	1.8K	5%	1/4W	
R543	1-214-721-00	METAL	470	1%	1/4W	
R544	1-214-757-00	METAL	15K	1%	1/4W	
R545	1-214-757-00	METAL	15K	1%	1/4W	
R546	1-214-771-00	METAL	56K	1%	1/4W	
R547	1-246-509-00	CARBON	33K	5%	1/4W	
R548	1-246-481-00	CARBON	2.2K	5%	1/4W	
R549	1-246-489-00	CARBON	4.7K	5%	1/4W	
R550	1-246-508-00	CARBON	30K	5%	1/4W	
R551	1-246-501-00	CARBON	15K	5%	1/4W	
R552	1-246-501-00	CARBON	15K	5%	1/4W	
R553	1-246-485-00	CARBON	3.3K	5%	1/4W	
R554	1-214-764-00	METAL	30K	1%	1/4W	
R555	1-246-529-00	CARBON	220K	5%	1/4W	
R556	1-246-512-00	CARBON	43K	5%	1/4W	
R557	1-246-513-00	CARBON	47K	5%	1/4W	
R558	1-246-513-00	CARBON	47K	5%	1/4W	
R559	1-246-541-00	CARBON	680K	5%	1/4W	
R560	1-246-515-00	CARBON	56K	5%	1/4W	
R561	1-246-505-00	CARBON	22K	5%	1/4W	
R563	1-246-495-00	CARBON	8.2K	5%	1/4W	
R601	1-246-425-00	CARBON	10	5%	1/4W	
R602	1-246-521-00	CARBON	100K	5%	1/4W	
R603	1-246-457-00	CARBON	220	5%	1/4W	
R604	1-246-529-00	CARBON	220K	5%	1/4W	
R605	1-246-499-00	CARBON	12K	5%	1/4W	
R606	1-246-491-00	CARBON	5.6K	5%	1/4W	
R607	1-246-513-00	CARBON	47K	5%	1/4W	
R608	1-246-455-00	CARBON	180	5%	1/4W	
R609	1-246-493-00	CARBON	6.8K	5%	1/4W	
R610	1-247-831-00	CARBON	1K	5%	1/6W	
R611	1-246-465-00	CARBON	470	5%	1/4W	
R612	1-246-485-00	CARBON	3.3K	5%	1/4W	
R613	1-246-491-00	CARBON	5.6K	5%	1/4W	
R614	1-246-489-00	CARBON	4.7K	5%	1/4W	
R615	1-246-505-00	CARBON	22K	5%	1/4W	
R616	1-246-497-00	CARBON	10K	5%	1/4W	

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description				Remark
R617	1-246-521-00	CARBON	100K	5%	1/4W	
R619	1-246-531-00	CARBON	270K	5%	1/4W	
R620	1-246-509-00	CARBON	33K	5%	1/4W	
R621	1-246-495-00	CARBON	8.2K	5%	1/4W	
R622	1-246-509-00	CARBON	33K	5%	1/4W	
R623	1-246-485-00	CARBON	3.3K	5%	1/4W	
R624	1-246-491-00	CARBON	5.6K	5%	1/4W	
R625	1-246-489-00	CARBON	4.7K	5%	1/4W	
R626	1-246-513-00	CARBON	47K	5%	1/4W	
R627	1-246-489-00	CARBON	4.7K	5%	1/4W	
R628	1-246-529-00	CARBON	220K	5%	1/4W	
R629	1-246-521-00	CARBON	100K	5%	1/4W	
R630	1-246-529-00	CARBON	220K	5%	1/4W	
R631	1-246-513-00	CARBON	47K	5%	1/4W	
R632	1-246-489-00	CARBON	4.7K	5%	1/4W	
R633	1-246-467-00	CARBON	560	5%	1/4W	
R634	1-246-517-00	CARBON	68K	5%	1/4W	
R636	1-246-503-00	CARBON	18K	5%	1/4W	
R637	1-246-465-00	CARBON	470	5%	1/4W	
R640	1-246-479-00	CARBON	1.8K	5%	1/4W	
R643	1-214-721-00	METAL	470	1%	1/4W	
R644	1-214-757-00	METAL	15K	1%	1/4W	
R645	1-214-757-00	METAL	15K	1%	1/4W	
R646	1-214-771-00	METAL	56K	1%	1/4W	
R647	1-246-509-00	CARBON	33K	5%	1/4W	
R648	1-246-481-00	CARBON	2.2K	5%	1/4W	
R649	1-246-489-00	CARBON	4.7K	5%	1/4W	
R650	1-246-508-00	CARBON	30K	5%	1/4W	
R651	1-246-501-00	CARBON	15K	5%	1/4W	
R652	1-246-501-00	CARBON	15K	5%	1/4W	
R653	1-246-485-00	CARBON	3.3K	5%	1/4W	
R654	1-214-764-00	METAL	30K	1%	1/4W	
R655	1-246-529-00	CARBON	220K	5%	1/4W	
R656	1-246-512-00	CARBON	43K	5%	1/4W	
R657	1-246-513-00	CARBON	47K	5%	1/4W	
R658	1-246-513-00	CARBON	47K	5%	1/4W	
R659	1-246-541-00	CARBON	680K	5%	1/4W	
R660	1-246-515-00	CARBON	56K	5%	1/4W	
R661	1-246-505-00	CARBON	22K	5%	1/4W	
R662	1-246-496-00	CARBON	9.1K	5%	1/4W	
R663	1-246-495-00	CARBON	8.2K	5%	1/4W	
R701	1-246-511-00	CARBON	39K	5%	1/4W	
R702	1-246-505-00	CARBON	22K	5%	1/4W	
R703	1-246-505-00	CARBON	22K	5%	1/4W	
R704	1-246-511-00	CARBON	39K	5%	1/4W	
R705	1-246-503-00	CARBON	18K	5%	1/4W	
R706	1-246-503-00	CARBON	18K	5%	1/4W	
R707	1-246-505-00	CARBON	22K	5%	1/4W	
R708	1-246-505-00	CARBON	22K	5%	1/4W	
R710	1-246-497-00	CARBON	10K	5%	1/4W	
R712	1-246-473-00	CARBON	1K	5%	1/4W	
R713	1-247-859-00	CARBON	15K	5%	1/6W	
R714	1-246-473-00	CARBON	1K	5%	1/4W	

Ref.No.	Part No.	Description				Remark
R716	1-246-515-00	CARBON	56K	5%	1/4W	
R718	1-246-489-00	CARBON	4.7K	5%	1/4W	
R720	1-246-513-00	CARBON	47K	5%	1/4W	
R721	1-246-513-00	CARBON	47K	5%	1/4W	
R723	1-246-481-00	CARBON	2.2K	5%	1/4W	
R724	1-246-481-00	CARBON	2.2K	5%	1/4W	
R725	1-246-481-00	CARBON	2.2K	5%	1/4W	
R726	⚠1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R727	1-246-489-00	CARBON	4.7K	5%	1/4W	
R729	1-246-461-00	CARBON	330	5%	1/4W	
R730	1-246-521-00	CARBON	100K	5%	1/4W	
R731	⚠1-212-869-00	FUSIBLE	33	5%	1/4W	F
R732	1-246-481-00	CARBON	2.2K	5%	1/4W	
R733	1-246-475-00	CARBON	1.2K	5%	1/4W	
R734	⚠1-212-869-00	FUSIBLE	33	5%	1/4W	F
R735	1-246-505-00	CARBON	22K	5%	1/4W	
R736	1-246-475-00	CARBON	1.2K	5%	1/4W	
R738	1-246-497-00	CARBON	10K	5%	1/4W	
R739	1-246-511-00	CARBON	39K	5%	1/4W	
R740	1-246-437-00	CARBON	33	5%	1/4W	
R741	1-246-505-00	CARBON	22K	5%	1/4W	
R742	1-246-449-00	CARBON	100	5%	1/4W	
R743	⚠1-212-137-11	RES, METAL	330	5%	1W	
R744	1-246-497-00	CARBON	10K	5%	1/4W	
R745	1-246-497-00	CARBON	10K	5%	1/4W	
R746	1-246-505-00	CARBON	22K	5%	1/4W	
R747	1-247-863-00	CARBON	22K	5%	1/6W	
R748	1-246-545-00	CARBON	1M	5%	1/4W	
R749	1-246-457-00	CARBON	220	5%	1/4W	
R760	1-246-497-00	CARBON	10K	5%	1/4W	
R761	1-246-521-00	CARBON	100K	5%	1/4W	
R763	1-246-489-00	CARBON	4.7K	5%	1/4W	

VARIABLE RESISTOR

RV501	1-228-749-00	RES, ADJ, CARBON 22K
RV502	1-228-748-00	RES, ADJ, CARBON 10K
RV503	1-228-749-00	RES, ADJ, CARBON 22K
RV504	1-228-745-00	RES, ADJ, CARBON 1K
RV601	1-228-749-00	RES, ADJ, CARBON 22K
RV602	1-228-748-00	RES, ADJ, CARBON 10K
RV603	1-228-749-00	RES, ADJ, CARBON 22K
RV604	1-228-745-00	RES, ADJ, CARBON 1K
RV701	1-228-749-00	RES, ADJ, CARBON 22K

RELAY

RY701	1-515-519-00	MICRO RELAY

TRANSFORMER

T701	1-433-272-00	COIL, BIAS OSCILLATOR
TPR501	1-409-374-00	COIL, TRAP
TPR601	1-409-374-00	COIL, TRAP

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

SS-16

Ref.No.	Part No.	Description			Remark
	♠:A-6715-187-A	SS-16 BOARD, COMPLETE			
		**********************			
	♠:3-681-170-00	HEAT SINK, S			
		CAPACITOR			
C301	1-123-330-00	ELECT	22MF	20%	16V
C302	1-130-516-51	MYLAR	0.01MF	10%	50V
C303	1-130-516-51	MYLAR	0.01MF	10%	50V
C304	1-123-382-00	ELECT	3.3MF	20%	50V
C305	1-161-021-00	CERAMIC	0.047MF	10%	25V
C306	1-123-382-00	ELECT	3.3MF	20%	50V
C307	1-161-021-00	CERAMIC	0.047MF	10%	25V
C308	1-123-382-00	ELECT	3.3MF	20%	50V
C309	1-161-021-00	CERAMIC	0.047MF	10%	25V
C310	1-130-516-51	MYLAR	0.01MF	10%	50V
C311	1-123-296-00	ELECT	220MF	20%	6.3V
C312	1-123-328-00	ELECT	4.7MF	20%	25V
C313	1-161-013-00	CERAMIC	0.01MF	10%	25V
C314	1-123-306-00	ELECT	47MF	20%	10V
C315	1-108-605-00	MYLAR	0.12MF	5%	50V
C316	1-127-468-00	ELECT(SOLID)	0.22MF	5%	16V
C317	1-123-333-00	ELECT	100MF	20%	16V
C318	1-130-479-00	MYLAR	0.0047MF	5%	50V
C319	1-102-106-00	CERAMIC	100PF	10%	50V
C320	1-123-381-00	ELECT	2.2MF	20%	50V
C321	1-123-296-00	ELECT	220MF	20%	6.3V
C322	1-161-021-00	CERAMIC	0.047MF	10%	25V
C323	1-131-357-00	TANTALUM	4.7MF	20%	25V
C324	1-123-381-00	ELECT	2.2MF	20%	50V
C325	1-131-357-00	TANTALUM	4.7MF	20%	25V
C326	1-123-381-00	ELECT	2.2MF	20%	50V
C327	1-161-016-00	CERAMIC	0.018MF	10%	25V
C328	1-161-013-00	CERAMIC	0.01MF	10%	25V
C329	1-123-356-00	ELECT	10MF	20%	16V
C330	1-161-016-00	CERAMIC	0.018MF	10%	25V
C331	1-161-016-00	CERAMIC	0.018MF	10%	25V
C332	1-123-317-00	ELECT	22MF	20%	16V
C333	1-131-354-00	TANTALUM	1.5MF	10%	25V
C334	1-161-021-00	CERAMIC	0.047MF	10%	25V
C335	1-161-017-00	CERAMIC	0.022MF	10%	25V
C336	1-161-002-00	CERAMIC	0.0012MF	10%	25V
C337	1-161-016-00	CERAMIC	0.018MF	10%	25V
C338	1-161-013-00	CERAMIC	0.01MF	10%	25V
C339	1-161-016-00	CERAMIC	0.018MF	10%	25V
C340	1-161-013-00	CERAMIC	0.01MF	10%	25V
C341	1-123-382-00	ELECT	3.3MF	20%	50V
C342	1-161-019-00	CERAMIC	0.033MF	10%	25V
C343	1-123-330-00	ELECT	22MF	20%	16V
C344	1-161-019-00	CERAMIC	0.033MF	10%	25V
C345	1-161-013-00	CERAMIC	0.01MF	10%	25V
C346	1-161-021-00	CERAMIC	0.047MF	10%	25V
C347	1-123-380-00	ELECT	1MF	20%	50V
C348	1-127-472-00	ELECT(SOLID)	1MF	5%	16V
C350	1-123-333-00	ELECT	100MF	20%	16V
C351	1-123-306-00	ELECT	47MF	20%	10V
C352	1-161-021-00	CERAMIC	0.047MF	10%	25V
C355	1-123-328-00	ELECT	4.7MF	20%	25V
C356	1-123-380-00	ELECT	1MF	20%	50V
C357	1-123-333-00	ELECT	100MF	20%	16V
C358	1-161-021-00	CERAMIC	0.047MF	10%	25V
C360	1-123-333-00	ELECT	100MF	20%	16V
C361	1-123-333-00	ELECT	100MF	20%	16V
C362	1-161-021-00	CERAMIC	0.047MF	10%	25V
C363	1-123-332-00	ELECT	47MF	20%	16V
C365	1-131-354-00	TANTALUM	1.5MF	10%	25V
C601	1-161-021-00	CERAMIC	0.047MF	10%	25V
C602	1-161-013-00	CERAMIC	0.01MF	10%	25V
C603	1-129-794-00	FILM	0.0033MF	5%	100V
C604	1-161-013-00	CERAMIC	0.01MF	10%	25V
C605	1-161-013-00	CERAMIC	0.01MF	10%	25V
C606	1-123-380-00	ELECT	1MF	20%	50V
C607	1-123-380-00	ELECT	1MF	20%	50V
C608	1-161-494-00	CERAMIC	0.022MF	30%	25V
C609	1-161-013-00	CERAMIC	0.01MF	10%	25V
C610	1-161-002-00	CERAMIC	0.0012MF	10%	25V
C611	1-161-002-00	CERAMIC	0.0012MF	10%	25V
C612	1-102-517-00	CERAMIC	30PF	5%	50V
C613	1-102-517-00	CERAMIC	30PF	5%	50V

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description			Remark
C614	1-123-331-00	ELECT	33MF	20%	25V
C615	1-123-331-00	ELECT	33MF	20%	25V
C617	1-123-380-00	ELECT	1MF	20%	50V
C618	1-123-306-00	ELECT	47MF	20%	10V
C801	1-161-017-00	CERAMIC	0.022MF	10%	25V
		FILTER			
CF601	1-527-822-00	OSCILLATOR, CERAMIC			
		CONNECTOR			
CN301	♠:1-560-892-00	PIN, CONNECTOR 4P			
CN302	♠ 1-560-466-00	PIN, CONNECTOR 3P			
CN303	♠:1-560-892-31	PIN, CONNECTOR 4P			
CN304	♠:1-560-892-41	PIN, CONNECTOR 4P			
CN305	♠:1-560-890-31	PIN, CONNECTOR 2P			
CN306	♠:1-560-895-41	PIN, CONNECTOR 7P			
CN307	♠:1-560-890-00	PIN, CONNECTOR 2P			
CN308	♠:1-560-892-21	PIN, CONNECTOR 4P			
CN309	♠:1-560-895-21	PIN, CONNECTOR 7P			
CN310	♠:1-560-891-00	PIN, CONNECTOR 3P			
CN311	♠:1-560-891-31	PIN, CONNECTOR 3P			
CN312	♠:1-560-895-31	PIN, CONNECTOR 7P			
CN602	♠:1-560-899-00	PIN, CONNECTOR 11P			
CN603	♠:1-560-890-00	PIN, CONNECTOR 2P			
CN604	♠:1-560-891-00	PIN, CONNECTOR 3P			
CN605	♠:1-560-890-21	PIN, CONNECTOR 2P			
CN606	♠:1-560-892-00	PIN, CONNECTOR 4P			
CN607	♠:1-560-890-41	PIN, CONNECTOR 2P			
CN608	♠:1-560-892-31	PIN, CONNECTOR 4P			
CN609	♠:1-560-893-00	PIN, CONNECTOR 5P			
CN610	♠:1-560-891-41	PIN, CONNECTOR 3P			
CN611	♠:1-560-891-21	PIN, CONNECTOR 3P			
CN613	♠:1-560-894-00	PIN, CONNECTOR 6P			
CN614	♠:1-560-896-00	PIN, CONNECTOR 8P			
CN615	♠:1-560-895-00	PIN, CONNECTOR 7P			
		DIODE			
D301	8-719-100-57	DIODE RD10EB2			
D302	8-719-000-06	DIODE MC921			
D304	8-719-911-19	DIODE 1SS119			
D306	8-719-000-06	DIODE MC921			
D308	8-719-911-19	DIODE 1SS119			
D309	8-719-911-19	DIODE 1SS119			
D311	8-719-911-19	DIODE 1SS119			
D313	8-719-911-19	DIODE 1SS119			
D314	8-719-911-19	DIODE 1SS119			
D315	8-719-911-19	DIODE 1SS119			
D316	8-719-911-19	DIODE 1SS119			
D317	8-719-911-19	DIODE 1SS119			
D325	8-719-000-04	DIODE MC911			
D326	8-719-162-07	DIODE RD6.2E-B			
D327	8-719-200-02	DIODE 10E-2			
D328	8-719-000-06	DIODE MC921			

Ref.No.	Part No.	Description	Remark
D335	8-719-911-19	DIODE 1SS119	
D339	8-719-911-19	DIODE 1SS119	
D340	8-719-911-19	DIODE 1SS119	
D341	8-719-812-31	DIODE TLR123	
D607	8-719-911-19	DIODE 1SS119	
D608	8-719-000-12	DIODE MC931	
D610	8-719-911-19	DIODE 1SS119	
D612	8-719-911-19	DIODE 1SS119	
D613	8-719-911-19	DIODE 1SS119	
D614	8-719-911-19	DIODE 1SS119	
D616	8-719-911-19	DIODE 1SS119	
D617	8-719-911-19	DIODE 1SS119	
		IC	
IC301	8-751-941-00	IC CX-194B-0	
IC302	8-759-135-80	IC UPC358C	
IC303	8-759-145-58	IC UPC4558C	
IC304	8-759-132-40	IC UPC324C	
IC305	8-759-240-53	IC TC4053BP	
IC306	8-759-132-40	IC UPC324C	
IC307	8-759-240-53	IC TC4053BP	
IC308	8-759-135-80	IC UPC358C	
IC601	8-759-908-37	IC MB88421-113M	
		COIL	
L601	1-408-418-21	MICRO INDUCTOR 56UH	
		VOLUME BLOCK	
PS301	⚠1-532-637-00	LINK, IC	
PS302	⚠1-532-679-00	LINK, IC	
		TRANSISTOR	
Q301	=>8-729-245-83	TRANSISTOR 2SC2458	
Q302	=>8-729-245-83	TRANSISTOR 2SC2458	
Q303	=>8-729-245-83	TRANSISTOR 2SC2458	
Q304	=>8-729-245-83	TRANSISTOR 2SC2458	
Q305	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q306	=>8-729-245-83	TRANSISTOR 2SC2458	
Q307	=>8-729-245-83	TRANSISTOR 2SC2458	
Q309	=>8-729-245-83	TRANSISTOR 2SC2458	
Q310	=>8-729-245-83	TRANSISTOR 2SC2458	
Q311	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q312	=>8-729-177-43	TRANSISTOR 2SD774	
Q313	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q314	⚠.8-729-805-13	TRANSISTOR 2SC1475-13	
Q315	=>8-729-245-83	TRANSISTOR 2SC2458	
Q316	=>8-729-245-83	TRANSISTOR 2SC2458	
Q317	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q318	=>8-729-245-83	TRANSISTOR 2SC2458	
Q319	=>8-729-245-83	TRANSISTOR 2SC2458	
Q320	8-729-316-16	TRANSISTOR 2SC1061	
Q321	=>8-729-204-83	TRANSISTOR 2SA1048-GR	

(BOARD PART NO. 1-610-379-12 ONLY)

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

SS-16

Ref.No.	Part No.	Description	Remark
Q322	=>8-729-245-83	TRANSISTOR 2SC2458	
Q324	=>8-729-245-83	TRANSISTOR 2SC2458	
Q325	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q326	=>8-729-245-83	TRANSISTOR 2SC2458	
Q327	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q330	=>8-729-245-83	TRANSISTOR 2SC2458	
Q331	=>8-729-245-83	TRANSISTOR 2SC2458	
Q332	=>8-729-245-83	TRANSISTOR 2SC2458	
Q333	=>8-729-245-83	TRANSISTOR 2SC2458	
Q334	8-729-316-16	TRANSISTOR 2SC1061	
Q335	=>8-729-177-32	TRANSISTOR 2SD773	
Q336	=>8-729-245-83	TRANSISTOR 2SC2458	
Q337	=>8-729-245-83	TRANSISTOR 2SC2458	
Q338	=>8-729-245-83	TRANSISTOR 2SC2458	
Q339	=>8-729-245-83	TRANSISTOR 2SC2458	
Q340	8-729-374-02	TRANSISTOR 2SB740	
Q341	8-729-374-02	TRANSISTOR 2SB740	
Q342	=>8-729-177-43	TRANSISTOR 2SD774	
Q343	=>8-729-177-43	TRANSISTOR 2SD774	
Q344	=>8-729-245-83	TRANSISTOR 2SC2458	
Q345	=>8-729-177-43	TRANSISTOR 2SD774	
Q346	=>8-729-245-83	TRANSISTOR 2SC2458	
Q347	=>8-729-245-83	TRANSISTOR 2SC2458	
Q348	=>8-729-245-83	TRANSISTOR 2SC2458	
Q349	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q352	=>8-729-245-83	TRANSISTOR 2SC2458	
Q354	=>8-729-245-83	TRANSISTOR 2SC2458	
Q355	=>8-729-245-83	TRANSISTOR 2SC2458	
Q356	=>8-729-245-83	TRANSISTOR 2SC2458	
Q357	=>8-729-245-83	TRANSISTOR 2SC2458	
Q358	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q359	=>8-729-245-83	TRANSISTOR 2SC2458	
Q360	=>8-729-245-83	TRANSISTOR 2SC2458	
Q362	=>8-729-245-83	TRANSISTOR 2SC2458	
Q363	=>8-729-245-83	TRANSISTOR 2SC2458	
Q364	=>8-729-245-83	TRANSISTOR 2SC2458	
Q365	=>8-729-245-83	TRANSISTOR 2SC2458	
Q366	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q367	=>8-729-245-83	TRANSISTOR 2SC2458	
Q368	=>8-729-245-83	TRANSISTOR 2SC2458	
Q370	=>8-729-245-83	TRANSISTOR 2SC2458	
Q372	=>8-729-245-83	TRANSISTOR 2SC2458	
Q373	=>8-729-245-83	TRANSISTOR 2SC2458	
Q604	=>8-729-245-83	TRANSISTOR 2SC2458	
Q605	=>8-729-245-83	TRANSISTOR 2SC2458	
Q606	=>8-729-245-83	TRANSISTOR 2SC2458	
Q607	=>8-729-245-83	TRANSISTOR 2SC2458	
Q608	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q609	=>8-729-245-83	TRANSISTOR 2SC2458	
Q610	=>8-729-245-83	TRANSISTOR 2SC2458	
Q611	=>8-729-245-83	TRANSISTOR 2SC2458	
Q612	=>8-729-245-83	TRANSISTOR 2SC2458	
Q613	=>8-729-245-83	TRANSISTOR 2SC2458	
Q614	=>8-729-245-83	TRANSISTOR 2SC2458	
Q615	=>8-729-177-43	TRANSISTOR 2SD774	
Q616	8-729-116-42	TRANSISTOR 2SD1164	
Q617	=>8-729-245-83	TRANSISTOR 2SC2458	
Q618	=>8-729-245-83	TRANSISTOR 2SC2458	
Q619	=>8-729-177-43	TRANSISTOR 2SD774	
Q620	8-729-116-42	TRANSISTOR 2SD1164	
Q621	=>8-729-245-83	TRANSISTOR 2SC2458	
Q622	=>8-729-245-83	TRANSISTOR 2SC2458	
Q623	=>8-729-245-83	TRANSISTOR 2SC2458	
Q624	=>8-729-245-83	TRANSISTOR 2SC2458	
Q625	=>8-729-245-83	TRANSISTOR 2SC2458	
Q626	=>8-729-987-42	TRANSISTOR 2SA874	
Q627	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q628	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q629	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q630	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q631	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q632	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q633	=>8-729-245-83	TRANSISTOR 2SC2458	
Q634	=>8-729-245-83	TRANSISTOR 2SC2458	
Q636	=>8-729-245-83	TRANSISTOR 2SC2458	

RESISTOR

Ref.No.	Part No.	Description				Remark
R301 ⚠	1-212-855-00	FUSIBLE	8.2	5%	1/4W	F
R302	1-247-821-00	CARBON	390	5%	1/6W	
R303	1-206-482-00	METAL OXIDE	62	5%	2W	F
R304	1-247-863-00	CARBON	22K	5%	1/6W	
R305	1-247-863-00	CARBON	22K	5%	1/6W	
R306	1-247-855-00	CARBON	10K	5%	1/6W	
R307	1-247-871-00	CARBON	47K	5%	1/6W	
R308	1-247-866-00	CARBON	30K	5%	1/6W	
R309	1-247-855-00	CARBON	10K	5%	1/6W	
R310	1-247-859-00	CARBON	15K	5%	1/6W	
R312	1-247-831-00	CARBON	1K	5%	1/6W	
R313	1-247-879-00	CARBON	100K	5%	1/6W	
R314	1-247-871-00	CARBON	47K	5%	1/6W	
R315	1-247-831-00	CARBON	1K	5%	1/6W	
R316	1-247-859-00	CARBON	15K	5%	1/6W	
R317	1-247-871-00	CARBON	47K	5%	1/6W	
R318	1-247-831-00	CARBON	1K	5%	1/6W	
R319	1-247-859-00	CARBON	15K	5%	1/6W	
R320	1-247-871-00	CARBON	47K	5%	1/6W	
R321 ⚠	1-212-850-00	FUSIBLE	5.1	5%	1/4W	F
R322	1-247-865-00	CARBON	27K	5%	1/6W	
R323	1-247-855-00	CARBON	10K	5%	1/6W	
R324	1-247-855-00	CARBON	10K	5%	1/6W	
R325	1-247-855-00	CARBON	10K	5%	1/6W	
R326	1-247-829-00	CARBON	820	5%	1/6W	
R327	1-247-839-00	CARBON	2.2K	5%	1/6W	
R328	1-247-835-00	CARBON	1.5K	5%	1/6W	
R329	1-247-863-00	CARBON	22K	5%	1/6W	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description				Remark
R331	1-247-849-00	CARBON	5.6K	5%	1/6W	
R332	1-247-819-00	CARBON	330	5%	1/6W	
R333	1-247-891-00	CARBON	330K	5%	1/6W	
R334	1-247-859-00	CARBON	15K	5%	1/6W	
R335	1-247-849-00	CARBON	5.6K	5%	1/6W	
R336	1-247-891-00	CARBON	330K	5%	1/6W	
R338	1-247-855-00	CARBON	10K	5%	1/6W	
R339	1-247-831-00	CARBON	1K	5%	1/6W	
R340	1-247-903-00	CARBON	1M	5%	1/6W	
R341	1-247-855-00	CARBON	10K	5%	1/6W	
R342	1-247-831-00	CARBON	1K	5%	1/6W	
R343	1-247-903-00	CARBON	1M	5%	1/6W	
R344	1-247-871-00	CARBON	47K	5%	1/6W	
R345	1-247-887-00	CARBON	220K	5%	1/6W	
R346	1-247-887-00	CARBON	220K	5%	1/6W	
R347	1-247-865-00	CARBON	27K	5%	1/6W	
R348	1-247-865-00	CARBON	27K	5%	1/6W	
R349	1-247-848-00	CARBON	5.1K	5%	1/6W	
R350	1-247-867-00	CARBON	33K	5%	1/6W	
R351	1-247-867-00	CARBON	33K	5%	1/6W	
R352	1-247-855-00	CARBON	10K	5%	1/6W	
R353	1-247-856-00	CARBON	11K	5%	1/6W	
R359	1-247-871-00	CARBON	47K	5%	1/6W	
R360	1-247-871-00	CARBON	47K	5%	1/6W	
R361	1-247-859-00	CARBON	15K	5%	1/6W	
R362	1-247-872-00	CARBON	51K	5%	1/6W	
R363	1-247-847-00	CARBON	4.7K	5%	1/6W	
R364	1-247-900-00	CARBON	750K	5%	1/6W	
R365	1-247-847-00	CARBON	4.7K	5%	1/6W	
R367	1-247-871-00	CARBON	47K	5%	1/6W	
R368	1-247-833-00	CARBON	1.2K	5%	1/6W	
R369	1-247-838-00	CARBON	2K	5%	1/6W	
R370	1-247-847-00	CARBON	4.7K	5%	1/6W	
R371 ⚠	1-212-360-00	METAL OXIDE	1	5%	1W	F
R372 ⚠	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R373	1-247-883-00	CARBON	150K	5%	1/6W	
R374	1-247-883-00	CARBON	150K	5%	1/6W	
R375	1-247-847-00	CARBON	4.7K	5%	1/6W	
R376	1-247-857-00	CARBON	12K	5%	1/6W	
R377	1-247-867-00	CARBON	33K	5%	1/6W	
R378	1-247-855-00	CARBON	10K	5%	1/6W	
R379	1-247-887-00	CARBON	220K	5%	1/6W	
R380	1-247-879-00	CARBON	100K	5%	1/6W	
R381	1-247-879-00	CARBON	100K	5%	1/6W	
R382	1-247-867-00	CARBON	33K	5%	1/6W	
R383	1-247-879-00	CARBON	100K	5%	1/6W	
R384	1-247-879-00	CARBON	100K	5%	1/6W	
R385	1-247-883-00	CARBON	150K	5%	1/6W	
R386	1-247-883-00	CARBON	150K	5%	1/6W	
R387	1-247-871-00	CARBON	47K	5%	1/6W	
R388	1-247-867-00	CARBON	33K	5%	1/6W	
R389	1-247-867-00	CARBON	33K	5%	1/6W	
R390	1-247-868-00	CARBON	36K	5%	1/6W	
R391	1-247-866-00	CARBON	30K	5%	1/6W	
R392	1-247-832-00	CARBON	1.1K	5%	1/6W	
R393	1-247-857-00	CARBON	12K	5%	1/6W	
R394	1-247-897-00	CARBON	560K	5%	1/6W	
R395	1-247-847-00	CARBON	4.7K	5%	1/6W	
R396	1-247-867-00	CARBON	33K	5%	1/6W	
R398	1-247-871-00	CARBON	47K	5%	1/6W	
R399	1-247-847-00	CARBON	4.7K	5%	1/6W	
R400	1-247-823-00	CARBON	470	5%	1/6W	
R401 ⚠	1-212-360-00	METAL OXIDE	1	5%	1W	F
R402 ⚠	1-246-981-00	CARBON	4.7	5%	1/8W	F
R403	1-247-831-00	CARBON	1K	5%	1/6W	
			(BOARD PART NO. 1-610-397-13)			
R403	1-247-871-00	CARBON	47K	5%	1/6W	
			(BOARD PART NO. 1-610-397-12)			
R404	1-247-871-00	CARBON	47K	5%	1/6W	
R405	1-247-855-00	CARBON	10K	5%	1/6W	
R406	1-247-871-00	CARBON	47K	5%	1/6W	
R407	1-247-855-00	CARBON	10K	5%	1/6W	
R408	1-247-879-00	CARBON	100K	5%	1/6W	
R410	1-247-831-00	CARBON	1K	5%	1/6W	
R413	1-247-859-00	CARBON	15K	5%	1/6W	
R414	1-247-850-00	CARBON	6.2K	5%	1/6W	
R415	1-247-863-00	CARBON	22K	5%	1/6W	
R416	1-247-871-00	CARBON	47K	5%	1/6W	
R417	1-247-855-00	CARBON	10K	5%	1/6W	
R419	1-247-871-00	CARBON	47K	5%	1/6W	
R420 ⚠	1-212-366-00	METAL OXIDE	3.3	5%	1W	F
R421	1-247-871-00	CARBON	47K	5%	1/6W	
R422	1-247-871-00	CARBON	47K	5%	1/6W	
R423	1-247-855-00	CARBON	10K	5%	1/6W	
R424	1-247-871-00	CARBON	47K	5%	1/6W	
R425	1-247-855-00	CARBON	10K	5%	1/6W	
R426	1-247-863-00	CARBON	22K	5%	1/6W	
R427	1-247-863-00	CARBON	22K	5%	1/6W	
R428	1-244-865-00	CARBON	470	5%	1/2W	
R429	1-247-849-00	CARBON	5.6K	5%	1/6W	
R430	1-247-831-00	CARBON	1K	5%	1/6W	
R431 ⚠	1-212-360-00	METAL OXIDE	1	5%	1W	F
R432	1-247-849-00	CARBON	5.6K	5%	1/6W	
R433	1-247-831-00	CARBON	1K	5%	1/6W	
R434	1-244-865-00	CARBON	470	5%	1/2W	
R435	1-247-863-00	CARBON	22K	5%	1/6W	
R436	1-247-863-00	CARBON	22K	5%	1/6W	
R437	1-247-871-00	CARBON	47K	5%	1/6W	
R438	1-247-855-00	CARBON	10K	5%	1/6W	
R439	1-247-903-00	CARBON	1M	5%	1/6W	
R440	1-247-855-00	CARBON	10K	5%	1/6W	
R441	1-247-903-00	CARBON	1M	5%	1/6W	
R442	1-247-871-00	CARBON	47K	5%	1/6W	
R443	1-247-855-00	CARBON	10K	5%	1/6W	
R444	1-247-871-00	CARBON	47K	5%	1/6W	
R448	1-247-873-00	CARBON	56K	5%	1/6W	
R449	1-247-897-00	CARBON	560K	5%	1/6W	
R451	1-247-871-00	CARBON	47K	5%	1/6W	
R454	1-247-857-00	CARBON	12K	5%	1/6W	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description				Remark
R455	1-247-845-00	CARBON	3.9K	5%	1/6W	
R456	1-247-871-00	CARBON	47K	5%	1/6W	
R457⚠	1-246-981-00	CARBON	4.7	5%	1/8W	F
R458	1-247-825-00	CARBON	560	5%	1/6W	
R459	1-247-837-00	CARBON	1.8K	5%	1/6W	
R460	1-247-843-00	CARBON	3.3K	5%	1/6W	
R461	1-247-871-00	CARBON	47K	5%	1/6W	
R462	1-247-855-00	CARBON	10K	5%	1/6W	
R466	1-247-871-00	CARBON	47K	5%	1/6W	
R467	1-247-871-00	CARBON	47K	5%	1/6W	
R468	1-247-871-00	CARBON	47K	5%	1/6W	
R469	1-247-839-00	CARBON	2.2K	5%	1/6W	
R470	1-247-839-00	CARBON	2.2K	5%	1/6W	
R473	1-247-855-00	CARBON	10K	5%	1/6W	
R474 ⚠	1-212-857-00	FUSIBLE	10	5%	1/4W	F
R475	1-247-819-00	CARBON	330	5%	1/6W	
R476	1-247-871-00	CARBON	47K	5%	1/6W	
R477	1-247-847-00	CARBON	4.7K	5%	1/6W	
R478	1-246-469-00	CARBON	680	1%	1/4W	
R479	1-247-847-00	CARBON	4.7K	5%	1/6W	
R480	1-247-795-00	CARBON	33	5%	1/6W	
R481	1-247-808-00	CARBON	110	5%	1/6W	
R482	1-247-871-00	CARBON	47K	5%	1/6W	
R483	1-247-855-00	CARBON	10K	5%	1/6W	
R484	1-247-855-00	CARBON	10K	5%	1/6W	
R485	1-247-821-00	CARBON	390	5%	1/6W	
R492	1-247-853-00	CARBON	8.2K	5%	1/6W	
R493	1-247-871-00	CARBON	47K	5%	1/6W	
R494	1-247-875-00	CARBON	68K	5%	1/6W	
R495	1-247-855-00	CARBON	10K	5%	1/6W	
R496	1-247-873-00	CARBON	56K	5%	1/6W	
R497	1-247-869-00	CARBON	39K	5%	1/6W	
R498	1-247-808-00	CARBON	110	5%	1/6W	
R499	1-247-831-00	CARBON	1K	5%	1/6W	
R500	1-247-871-00	CARBON	47K	5%	1/6W	
R501	1-247-855-00	CARBON	10K	5%	1/6W	
R502	1-247-855-00	CARBON	10K	5%	1/6W	
R503	1-247-831-00	CARBON	1K	5%	1/6W	
R504	1-247-871-00	CARBON	47K	5%	1/6W	
R505	1-247-855-00	CARBON	10K	5%	1/6W	
R506	1-247-863-00	CARBON	22K		1/6W	
R507	1-247-871-00	CARBON	47K	5%	1/6W	
R508	1-247-871-00	CARBON	47K	5%	1/6W	
R509	1-247-871-00	CARBON	47K	5%	1/6W	
R511	1-247-863-00	CARBON	22K	5%	1/6W	
R512	1-246-467-00	CARBON	560	1%	1/4W	
R513	1-246-470-00	CARBON	750	5%	1/4W	
R514	1-247-871-00	CARBON	47K	5%	1/6W	
R518	1-247-863-00	CARBON	22K	5%	1/6W	
R519	1-247-855-00	CARBON	10K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R520	1-247-871-00	CARBON	47K	5%	1/6W	
R521	1-247-879-00	CARBON	100K	5%	1/6W	
R522	1-247-857-00	CARBON	12K	5%	1/6W	
R523	1-247-855-00	CARBON	10K	5%	1/6W	
R524	1-247-842-00	CARBON	3K	5%	1/6W	
R525	1-247-855-00	CARBON	10K	5%	1/6W	
R527	1-247-863-00	CARBON	22K	5%	1/6W	
R528	1-247-871-00	CARBON	47K	5%	1/6W	
R555	1-247-880-00	CARBON	110K		1/6W	
R557	1-247-871-00	CARBON	47K	5%	1/6W	
R559	1-247-865-00	CARBON	27K	5%	1/6W	
R610	1-247-817-00	CARBON	270	5%	1/6W	
R611	1-247-831-00	CARBON	1K	5%	1/6W	
R612	1-247-871-00	CARBON	47K	5%	1/6W	
R613	1-247-886-00	CARBON	200K	5%	1/6W	
R614	1-247-841-00	CARBON	2.7K	5%	1/6W	
R615	1-247-869-00	CARBON	39K	5%	1/6W	
R616	1-247-841-00	CARBON	2.7K	5%	1/6W	
R617	1-247-867-00	CARBON	33K	5%	1/6W	
R618	1-247-863-00	CARBON	22K	5%	1/6W	
R619	1-247-849-00	CARBON	5.6K	5%	1/6W	
R620	1-247-879-00	CARBON	100K	5%	1/6W	
R621	1-247-815-00	CARBON	220	5%	1/6W	
R622	1-247-875-00	CARBON	68K	5%	1/6W	
R623	1-247-831-00	CARBON	1K	5%	1/6W	
R624	1-247-801-00	CARBON	56	5%	1/6W	
R625	1-247-852-00	CARBON	7.5K	5%	1/6W	
R627	1-247-847-00	CARBON	4.7K	5%	1/6W	
R628	1-247-871-00	CARBON	47K	5%	1/6W	
R629	1-247-849-00	CARBON	5.6K	5%	1/6W	
R630	1-247-871-00	CARBON	47K	5%	1/6W	
R631	1-247-895-00	CARBON	470K	5%	1/6W	
R632	1-247-875-00	CARBON	68K	5%	1/6W	
R633	1-247-831-00	CARBON	1K	5%	1/6W	
R634	1-247-879-00	CARBON	100K	5%	1/6W	
R635	1-247-871-00	CARBON	47K	5%	1/6W	
R636	1-247-871-00	CARBON	47K	5%	1/6W	
R637	1-247-827-00	CARBON	680	5%	1/6W	
R638	1-247-831-00	CARBON	1K	5%	1/6W	
R639	1-247-831-00	CARBON	1K	5%	1/6W	
R640	1-247-831-00	CARBON	1K	5%	1/6W	
R641	1-247-831-00	CARBON	1K	5%	1/6W	
R642	1-247-871-00	CARBON	47K	5%	1/6W	
R643	1-247-871-00	CARBON	47K	5%	1/6W	
R644	1-247-855-00	CARBON	10K	5%	1/6W	
R645	1-247-871-00	CARBON	47K	5%	1/6W	
R647	1-247-871-00	CARBON	47K	5%	1/6W	
R648	1-247-855-00	CARBON	10K	5%	1/6W	
R649	1-247-855-00	CARBON	10K	5%	1/6W	
R650	1-247-871-00	CARBON	47K	5%	1/6W	
R652	1-247-871-00	CARBON	47K	5%	1/6W	
R653	1-247-855-00	CARBON	10K	5%	1/6W	
R654	1-247-855-00	CARBON	10K	5%	1/6W	
R655	1-247-871-00	CARBON	47K	5%	1/6W	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description	Remark
R656	1-247-863-00	CARBON 22K 5% 1/6W	
R657	1-247-855-00	CARBON 10K 5% 1/6W	
R658	1-247-871-00	CARBON 47K 5% 1/6W	
R659	1-247-865-00	CARBON 27K 5% 1/6W	
R660	1-247-863-00	CARBON 22K 5% 1/6W	
R661	1-247-809-00	CARBON 120 5% 1/6W	
R662	1-247-829-00	CARBON 820 5% 1/6W	
R663	1-247-843-00	CARBON 3.3K 5% 1/6W	
R664	1-247-849-00	CARBON 5.6K 5% 1/6W	
R665	1-247-873-00	CARBON 56K 5% 1/6W	
R666	1-247-807-00	CARBON 100 5% 1/6W	
R667	1-247-855-00	CARBON 10K 5% 1/6W	
R672	1-247-831-00	CARBON 1K 5% 1/6W	
R673	1-247-831-00	CARBON 1K 5% 1/6W	
R674	1-247-831-00	CARBON 1K 5% 1/6W	
R675	1-247-831-00	CARBON 1K 5% 1/6W	
R676	1-247-831-00	CARBON 1K 5% 1/6W	
R677	1-247-831-00	CARBON 1K 5% 1/6W	
R678	1-247-855-00	CARBON 10K 5% 1/6W	
R679	1-247-871-00	CARBON 47K 5% 1/6W	
R681	1-247-831-00	CARBON 1K 5% 1/6W	
R682	1-247-831-00	CARBON 1K 5% 1/6W	
R683	1-247-871-00	CARBON 47K 5% 1/6W	
R690	1-247-855-00	CARBON 10K 5% 1/6W	
R691	1-247-855-00	CARBON 10K 5% 1/6W	
R692	1-247-855-00	CARBON 10K 5% 1/6W	
R693	1-247-855-00	CARBON 10K 5% 1/6W	
R694	1-247-855-00	CARBON 10K 5% 1/6W	
R695	1-247-855-00	CARBON 10K 5% 1/6W	
R701	1-247-846-00	CARBON 4.3K 5% 1/6W	
R702	1-247-855-00	CARBON 10K 5% 1/6W	
R703	1-247-871-00	CARBON 47K 5% 1/6W	
R704	1-247-839-00	CARBON 2.2K 5% 1/6W	
R705	1-247-839-00	CARBON 2.2K 5% 1/6W	
R706	1-247-839-00	CARBON 2.2K 5% 1/6W	
R707	1-247-839-00	CARBON 2.2K 5% 1/6W	
R708	1-247-839-00	CARBON 2.2K 5% 1/6W	
R709	1-247-839-00	CARBON 2.2K 5% 1/6W	
R801	1-247-847-00	CARBON 4.7K 5% 1/6W	
R802	1-247-831-00	CARBON 1K 5% 1/6W	
R803	1-247-839-00	CARBON 2.2K 5% 1/6W	
R804	1-247-871-00	CARBON 47K 1/6W	
R851	1-247-855-00	CARBON 10K 5% 1/6W	
R854	1-247-855-00	CARBON 10K 5% 1/6W	
R858	1-247-861-00	CARBON 18K 5% 1/6W	
			(BOARD PART NO. 1-610-379-13 ONLY)
R861	1-247-859-00	CARBON 15K 5% 1/6W	
			(BOARD PART NO. 1-610-379-13 ONLY)

VARIABLE RESISTOR

Ref.No.	Part No.	Description	Remark
RV301	1-228-750-00	RES, ADJ, CARBON 47K	
RV302	1-228-750-00	RES, ADJ, CARBON 47K	
RV303	1-228-996-00	RES, ADJ, METAL GLAZE 47K	
RV304	1-228-750-00	RES, ADJ, CARBON 47K	
RV307	1-228-994-00	RES, ADJ, METAL GLAZE 10K	
RV308	1-228-994-00	RES, ADJ, METAL GLAZE 10K	
RV309	1-228-748-00	RES, ADJ, CARBON 10K	
RV310	1-228-991-00	RES, ADJ, METAL GLAZE 2.2K	

THERMISTOR

Ref.No.	Part No.	Description	Remark
TH302	1-800-202-XX	THERMISTOR S-10K	
TH303	1-800-200-XX	THERMISTOR S-3K	
TH304	1-800-202-XX	THERMISTOR S-10K	

Ref.No.	Part No.	Description	Remark
	♠:1-611-195-00	EJ-4 BOARD (SS-16 BOARD ********** PART NO. 1-610-397-12)	

Note:
When the parts No of the SS-16 board is 1-610-397-13, the EJ-4 board is not required with the parts contained in the SS-16 board.

CAPACITOR

Ref.No.	Part No.	Description	Remark
C851	1-123-305-00	ELECT 33MF 20% 10V	

DIODE

Ref.No.	Part No.	Description	Remark
D851	8-719-911-19	DIODE 1SS119	
D852	8-719-911-19	DIODE 1SS119	

TRANSISTOR

Ref.No.	Part No.	Description	Remark
Q371	8-729-178-54	TRANSISTOR 2SC2785	
Q851	8-729-178-54	TRANSISTOR 2SC2785	
Q852	8-729-178-54	TRANSISTOR 2SC2785	

RESISTOR

Ref.No.	Part No.	Description	Remark
R516	1-247-845-00	CARBON 3.9K 5% 1/6W	
R853	1-247-863-00	CARBON 22K 5% 1/6W	
R855	1-247-871-00	CARBON 47K 5% 1/6W	
R856	1-247-855-00	CARBON 10K 5% 1/6W	
R857	1-247-871-00	CARBON 47K 5% 1/6W	
R859	1-247-863-00	CARBON 22K 5% 1/6W	
R860	1-247-865-00	CARBON 27K 5% 1/6W	

THERMISTOR

Ref.No.	Part No.	Description	Remark
TH305	1-800-202-00	THERMISTOR S-10K	

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Ref.No.	Part No.	Description	Remark
	♠:1-610-406-12	FU-14 BOARD ***********	
	♠:3-674-313-00	COVER, LED	
	♠:3-674-372-00	HOLDER (A), LED	

DIODE

Ref.No.	Part No.	Description	Remark
D701	8-719-812-30	DIODE TL0123	
D702	8-719-812-32	DIODE TLY123	
D703	8-719-812-32	DIODE TLY123	
D704	8-719-812-33	DIODE TLG123A	
D705	8-719-812-30	DIODE TL0123	
D706	8-719-812-33	DIODE TLG123A	

RESISTOR

Ref.No.	Part No.	Description	Remark
R701	1-247-813-00	CARBON 180 5% 1/6W	
R702	1-247-813-00	CARBON 180 5% 1/6W	
R703	1-247-811-00	CARBON 150 5% 1/6W	
R704	1-247-811-00	CARBON 150 5% 1/6W	

SWITCH

Ref.No.	Part No.	Description	Remark
S701	1-553-997-12	SWITCH, KEY BOARD	
S702	1-553-997-12	SWITCH, KEY BOARD	
S703	1-553-997-12	SWITCH, KEY BOARD	
S704	1-553-997-12	SWITCH, KEY BOARD	
S705	1-553-997-12	SWITCH, KEY BOARD	
S706	1-553-997-12	SWITCH, KEY BOARD	
S707	1-553-997-12	SWITCH, KEY BOARD	

When indicating parts by reference number, please include the board name.

TU-39

Ref.No.	Part No.	Description			Remark
	♠:A-6721-189-A	TU-39 BOARD, COMPLETE (UK MODEL) **********************			
	1-230-152-00	PRESET UNIT, 12CH			
	♠:3-681-175-00	LID, UPPER, SHIELD CASE, TU			
	♠:3-681-176-00	LID, BOTTOM, SHIELD CASE, TU			
	♠:3-681-183-00	CASE (MAIN), SHIELD, TU			
	♠:4-336-029-00	PLATE, SHIELD			

CAPACITOR

Ref.No.	Part No.	Description			Remark
C005	1-161-075-51	CERAMIC	0.068MF	20%	50V
C007	1-102-529-00	CERAMIC	100PF	5%	50V
C008	1-102-527-00	CERAMIC	82PF	5%	50V
C009	1-102-943-00	CERAMIC	6PF	0.5PF	50V
C010	1-102-523-00	CERAMIC	56PF	5%	50V
C011	1-102-529-00	CERAMIC	100PF	5%	50V
C012	1-161-030-00	CERAMIC	0.0047MF	20%	25V
C013	1-102-074-00	CERAMIC	0.001MF	10%	50V
C014	1-102-074-00	CERAMIC	0.001MF	10%	50V
C015	1-161-030-00	CERAMIC	0.0047MF	20%	25V
C016	1-101-004-00	CERAMIC	0.01MF		50V
C017	1-161-030-00	CERAMIC	0.0047MF	20%	25V
C018	1-161-030-00	CERAMIC	0.0047MF	20%	25V
C019	1-161-030-00	CERAMIC	0.0047MF	20%	25V
C020	1-161-030-00	CERAMIC	0.0047MF	20%	25V
C021	1-123-328-00	ELECT	4.7MF	20%	25V
C022	1-161-030-00	CERAMIC	0.0047MF	20%	25V
C023	1-161-030-00	CERAMIC	0.0047MF	20%	25V
C024	1-102-518-00	CERAMIC	33PF	5%	50V
C025	1-102-529-00	CERAMIC	100PF	5%	50V
C026	1-102-941-00	CERAMIC	4PF	0.5PF	50V
C027	1-102-941-00	CERAMIC	4PF	0.5PF	50V
C028	1-102-518-00	CERAMIC	33PF	5%	50V
C029	1-102-527-00	CERAMIC	82PF	5%	50V
C030	1-123-356-00	ELECT	10MF	20%	16V
C031	1-161-030-00	CERAMIC	0.0047MF	20%	25V
C032	1-161-032-00	CERAMIC	0.01MF	20%	25V
C033	1-123-380-00	ELECT	1MF	20%	50V
C034	1-123-318-00	ELECT	33MF	20%	16V
C035	1-101-004-00	CERAMIC	0.01MF		50V
C039	1-102-959-00	CERAMIC	22PF	5%	50V
C040	1-102-959-00	CERAMIC	22PF	5%	50V
C041	1-161-032-00	CERAMIC	0.01MF	20%	25V
C042	1-161-032-00	CERAMIC	0.01MF	20%	25V
C044	1-161-030-00	CERAMIC	0.0047MF	20%	25V
C045	1-102-959-00	CERAMIC	22PF	5%	50V
C046	1-101-004-00	CERAMIC	0.01MF		50V
C047	1-123-318-00	ELECT	33MF	20%	16V
C048	1-161-032-00	CERAMIC	0.01MF	20%	25V
C049	1-123-380-00	ELECT	1MF	20%	50V
C050	1-123-356-00	ELECT	10MF	20%	50V
C051	1-123-379-00	ELECT	0.47MF	20%	50V
C052	1-101-004-00	CERAMIC	0.01MF		50V
C054	1-131-415-00	ELECT(SOLID)	0.68MF	10%	16V
C055	1-123-356-00	ELECT	10MF	20%	16V
C056	1-123-356-00	ELECT	10MF	20%	16V
C057	1-123-356-00	ELECT	10MF	20%	16V
C058	1-123-356-00	ELECT	10MF	20%	16V
C059	1-123-356-00	ELECT	10MF	20%	16V

DISCRIMINATOR

Ref.No.	Part No.	Description
CD001	1-404-407-00	DISCRIMINATOR, CERAMIC 6.0MHz

FILTER

Ref.No.	Part No.	Description
CF001	1-527-262-00	CERAMIC FILTER (6.0MHZ)

CONNECTOR

Ref.No.	Part No.	Description
CN001	♠:1-560-892-21	PIN, CONNECTOR 4P
CN002	♠:1-560-894-00	PIN, CONNECTOR 6P
CN003	♠:1-560-895-00	PIN, CONNECTOR 7P
CN004	♠:1-560-892-00	PIN, CONNECTOR 4P
CN005	♠:1-560-893-00	PIN, CONNECTOR 5P
CN006	♠:1-560-899-11	PIN, CONNECTOR 11P

CAPACITOR

Ref.No.	Part No.	Description
CT001	1-409-134-00	TRAP, CERAMIC (6.0MHZ)

DIODE

Ref.No.	Part No.	Description
D005	8-719-911-19	DIODE 1SS119
D007	8-719-901-33	DIODE 1SS133
D008	8-719-901-33	DIODE 1SS133
D009	8-719-901-33	DIODE 1SS133
D010	8-719-901-33	DIODE 1SS133
D011	8-719-901-33	DIODE 1SS133
D012	8-719-901-33	DIODE 1SS133
D013	8-719-901-33	DIODE 1SS133
D014	8-719-901-33	DIODE 1SS133
D015	8-719-901-33	DIODE 1SS133
D016	8-719-901-33	DIODE 1SS133
D017	8-719-901-33	DIODE 1SS133
D018	8-719-901-33	DIODE 1SS133
D032	8-719-901-33	DIODE 1SS133
D033	8-719-901-33	DIODE 1SS133
D034	8-719-901-33	DIODE 1SS133
D035	8-719-901-33	DIODE 1SS133

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description	Remark
D036	8-719-901-33	DIODE 1SS133	
D037	8-719-901-33	DIODE 1SS133	
D038	8-719-901-33	DIODE 1SS133	
D039	8-719-901-33	DIODE 1SS133	
D040	8-719-901-33	DIODE 1SS133	
D041	8-719-901-33	DIODE 1SS133	
D042	8-719-901-33	DIODE 1SS133	
D043	8-719-901-33	DIODE 1SS133	
D044	8-719-901-33	DIODE 1SS133	

IC

Ref.No.	Part No.	Description	Remark
IC001	8-759-276-07	IC TA7607AP	
IC002	8-759-193-91	IC UPC1391H	
IC003	8-759-600-44	IC M54836AP	
IC004	8-759-157-40	IC UPC574J	

COIL

Ref.No.	Part No.	Description	Remark
L001	1-407-681-00	MICRO INDUCTOR 1UH	
L002	1-407-690-00	MICRO INDUCTOR 5.6UH	
L003	1-408-406-00	MICRO INDUCTOR 5.6UH	
L004	1-408-423-00	MICRO INDUCTOR 150UH	
L005	1-408-410-00	MICRO INDUCTOR 12UH	
L007	1-408-412-00	MICRO INDUCTOR 18UH	
L008	1-408-413-00	MICRO INDUCTOR 22UH	

TRANSISTOR

Ref.No.	Part No.	Description	Remark
Q001	8-765-300-00	TRANSISTOR 2SC2009	
Q002	8-769-200-20	TRANSISTOR 2SK107-2	
Q003	8-729-245-83	TRANSISTOR 2SC2458	
Q006	=>8-729-245-83	TRANSISTOR 2SC2458	
Q007	8-729-245-83	TRANSISTOR 2SC2458	
Q008	8-729-988-12	TRANSISTOR 2SA881	
Q013	8-729-245-83	TRANSISTOR 2SC2458	
Q016	8-729-245-83	TRANSISTOR 2SC2458	
Q017	8-729-245-83	TRANSISTOR 2SC2458	
Q018	8-729-245-83	TRANSISTOR 2SC2458	
Q019	8-729-204-83	TRANSISTOR 2SA1048-GR	

RESISTOR

Ref.No.	Part No.	Description				Remark
R001	1-247-871-00	CARBON	47K	5%	1/6W	
R002	1-247-847-00	CARBON	4.7K	5%	1/6W	
R003	1-247-831-00	CARBON	1K	5%	1/6W	
R004	1-247-847-00	CARBON	4.7K	5%	1/6W	
R005	1-247-845-00	CARBON	3.9K	5%	1/6W	
R006	1-247-815-00	CARBON	220	5%	1/6W	
R007	1-247-815-00	CARBON	220	5%	1/6W	
R008	1-247-823-00	CARBON	470	5%	1/6W	
R009	1-247-837-00	CARBON	1.8K	5%	1/6W	
R010	1-247-831-00	CARBON	1K	5%	1/6W	
R011	1-247-841-00	CARBON	2.7K	5%	1/6W	
R012	1-247-835-00	CARBON	1.5K	5%	1/6W	
R013	1-247-863-00	CARBON	22K	5%	1/6W	
R014	1-247-877-00	CARBON	82K	5%	1/6W	
R015	1-247-867-00	CARBON	33K	5%	1/6W	
R016	1-247-901-00	CARBON	820K	5%	1/6W	
R017	1-247-831-00	CARBON	1K	5%	1/6W	
R018	1-247-813-00	CARBON	180	5%	1/6W	
R019	1-247-807-00	CARBON	100	5%	1/6W	
R020	1-247-823-00	CARBON	470	5%	1/6W	
R021	1-247-820-00	CARBON	360	5%	1/6W	
R028	1-247-831-00	CARBON	1K	5%	1/6W	
R029	1-247-831-00	CARBON	1K	5%	1/6W	
R030	1-247-847-00	CARBON	4.7K	5%	1/6W	
R031	1-247-817-00	CARBON	270	5%	1/6W	
R032	1-247-821-00	CARBON	390	5%	1/6W	
R033	1-247-829-00	CARBON	820	5%	1/6W	
R034	1-247-819-00	CARBON	330	5%	1/6W	
R035	1-247-841-00	CARBON	2.7K	5%	1/6W	
R049	1-247-855-00	CARBON	10K	5%	1/6W	
R052	1-247-897-00	CARBON	560K	5%	1/6W	
R053	1-247-883-00	CARBON	150K	5%	1/6W	
R055	1-247-867-00	CARBON	33K	5%	1/6W	
R056	1-247-871-00	CARBON	47K	5%	1/6W	
R057	1-247-871-00	CARBON	47K	5%	1/6W	
R058	1-247-895-00	CARBON	470K	5%	1/6W	
R059 ⚠	1-206-670-00	METAL OXIDE	1.8K	5%	2W	F
R060	1-247-875-00	CARBON	68K	5%	1/6W	
R061	1-247-839-00	CARBON	2.2K	5%	1/6W	
R062	1-247-831-00	CARBON	1K	5%	1/6W	
R063	1-247-881-00	CARBON	120K	5%	1/6W	
R064	1-247-863-00	CARBON	22K	5%	1/6W	
R065	1-247-863-00	CARBON	22K	5%	1/6W	
R066	1-247-863-00	CARBON	22K	5%	1/6W	
R067	1-247-863-00	CARBON	22K	5%	1/6W	
R068	1-247-863-00	CARBON	22K	5%	1/6W	
R069	1-247-863-00	CARBON	22K	5%	1/6W	
R070	1-247-863-00	CARBON	22K	5%	1/6W	
R071	1-247-855-00	CARBON	10K	5%	1/6W	
R072	1-247-863-00	CARBON	22K	5%	1/6W	
R073 ⚠	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R074	1-247-871-00	CARBON	47K	5%	1/6W	
R076	1-247-863-00	CARBON	22K	5%	1/6W	
R077	1-247-871-00	CARBON	47K	5%	1/6W	
R078	1-247-875-00	CARBON	68K	5%	1/6W	
R079	1-247-879-00	CARBON	100K	5%	1/6W	
R080	1-247-895-00	CARBON	470K	5%	1/6W	
R081	1-247-855-00	CARBON	10K	5%	1/6W	
R082	1-247-839-00	CARBON	2.2K	5%	1/6W	
R083	1-247-855-00	CARBON	10K	5%	1/6W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description	Remark
RV001	1-228-747-00	RES, ADJ, CARBON 4.7K	
RV002	1-228-753-00	RES, ADJ, CARBON 470K	

SWITCH

Ref.No.	Part No.	Description	Remark
S001	1-516-226-00	SLIDE SWITCH	
S002	1-554-373-00	SWITCH, LEVER	

FILTER

Ref.No.	Part No.	Description	Remark
SF001	1-404-345-00	SAWF	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

TRANSFORMER

Ref.No.	Part No.	Description	Remark
T001	1-404-068-00	COIL, VIF	
T002	1-404-068-00	COIL, VIF	
T003	1-404-207-00	COIL, VIF	
T004	1-404-203-00	COIL, VIF	
T005	1-404-203-00	COIL, VIF	

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Ref.No.	Part No.	Description	Remark
	♠:A-6721-182-A	TU-50 BOARD, COMPLETE (AEP MODEL)	
		**********************************	
	1-230-134-00	PRESET UNIT, 12CH	
	♠:3-681-222-00	CASE (MAIN), SHIELD, TU	
	♠:3-681-223-00	LID, UPPER, SHIELD CASE, TU	
	♠:3-681-224-00	LID, BOTTOM, SHIELD CASE, TU	

CAPACITOR

Ref.No.	Part No.	Description				Remark
C001	1-102-530-00	CERAMIC	120PF	5%	50V	
C002	1-102-530-00	CERAMIC	120PF	5%	50V	
C003	1-102-511-00	CERAMIC	13PF	5%	50V	
C004	1-102-523-00	CERAMIC	56PF	5%	50V	
C005	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C006	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C007	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C008	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C009	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C010	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C011	1-123-318-00	ELECT	33MF	20%	16V	
C012	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C013	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C014	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C015	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C016	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C017	1-102-941-00	CERAMIC	4PF	0.5PF	50V	
C018	1-102-941-00	CERAMIC	4PF	0.5PF	50V	
C019	1-102-518-00	CERAMIC	33PF	5%	50V	
C020	1-102-529-00	CERAMIC	100PF	5%	50V	
C021	1-102-518-00	CERAMIC	33PF	5%	50V	
C022	1-102-527-00	CERAMIC	82PF	5%	50V	
C023	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C024	1-123-318-00	ELECT	33MF	20%	16V	
C025	1-123-380-00	ELECT	1MF	20%	50V	
C026	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C032	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C033	1-123-379-00	ELECT	0.47MF	20%	50V	
C034	1-101-004-00	CERAMIC	0.01MF		50V	
C035	1-101-361-00	CERAMIC	150PF	5%	50V	
C036	1-123-380-00	ELECT	1MF	20%	50V	
C037	1-104-069-00	POLYSTYRENE	470PF	5%	50V	
C038	1-102-525-00	CERAMIC	68PF	5%	50V	
C039	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C040	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C041	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C042	1-123-318-00	ELECT	33MF	20%	16V	
C043	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C044	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C045	1-123-356-00	ELECT	10MF	20%	16V	
C046	1-161-030-00	CERAMIC	0.0047MF	20%	25V	
C047	1-123-318-00	ELECT	33MF	20%	16V	
C048	1-123-295-00	ELECT	100MF	20%	6.3V	
C049	1-123-295-00	ELECT	100MF	20%	6.3V	
C050	1-123-295-00	ELECT	100MF	20%	6.3V	
C051	1-123-295-00	ELECT	100MF	20%	6.3V	
C052	1-161-028-00	CERAMIC	0.0022MF	20%	25V	
C053	1-161-011-00	CERAMIC	0.0068MF	10%	25V	
C054	1-161-028-00	CERAMIC	0.0022MF	20%	25V	
C055	1-161-029-00	CERAMIC	0.0033MF	20%	25V	
C056	1-161-029-00	CERAMIC	0.0033MF	20%	25V	
C057	1-123-356-00	ELECT	10MF	20%	16V	
C058	1-161-036-00	CERAMIC	0.047MF	20%	25V	
C059	1-161-011-00	CERAMIC	0.0068MF	10%	25V	
C060	1-101-340-00	CERAMIC	120PF	10%	50V	
C061	1-123-380-00	ELECT	1MF	20%	50V	
C062	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C063	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C064	1-123-380-00	ELECT	1MF	20%	50V	
C065	1-123-380-00	ELECT	1MF	20%	50V	
C066	1-123-318-00	ELECT	33MF	20%	16V	
C067	1-123-356-00	ELECT	10MF	20%	16V	
C068	1-123-380-00	ELECT	1MF	20%	50V	
C069	1-123-333-00	ELECT	100MF	20%	16V	
C070	1-123-356-00	ELECT	10MF	20%	50V	
C071	1-123-381-00	ELECT	2.2MF	20%	50V	
C072	1-101-004-00	CERAMIC	0.01MF		50V	
C073	1-123-356-00	ELECT	10MF	20%	16V	

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description			Remark
C074	1-161-030-00	CERAMIC	0.0047MF	20%	25V
C075	1-123-318-00	ELECT	33MF	20%	16V
C076	1-123-356-00	ELECT	10MF	20%	16V
C077	1-101-004-00	CERAMIC	0.01MF		50V
C078	1-123-356-00	ELECT	10MF	20%	16V
C079	1-161-061-00	CERAMIC	0.068MF	10%	50V
C080	1-123-328-00	ELECT	4.7MF	20%	25V
C081	1-123-379-00	ELECT	0.47MF	20%	50V
C082	1-123-356-00	ELECT	10MF	20%	16V
C083	1-123-356-00	ELECT	10MF	20%	16V
C084	1-161-036-00	CERAMIC	0.047MF	20%	25V
C085	1-131-415-00	ELECT(SOLID)	0.68MF	10%	16V
C086	1-123-317-00	ELECT	22MF	20%	16V
CD001	1-404-501-00	DISCRIMINATOR, CERAMIC (5.74MHz)			

FILTER

CF001	1-527-840-00	FILTER, CERAMIC (5.5MHz)
CF002	1-527-839-00	FILTER, CERAMIC (5.5MHz)

CONNECTOR

CN001 ●:	1-560-892-00	PIN, CONNECTOR 4P
CN002 ●:	1-560-894-00	PIN, CONNECTOR 6P
CN003 ●:	1-560-895-00	PIN, CONNECTOR 7P
CN004 ●:	1-560-894-41	PIN, CONNECTOR 6P
CN005 ●:	1-560-894-00	PIN, CONNECTOR 6P
CN006 ●:	1-560-899-00	PIN, CONNECTOR 11P
CN007 ●:	1-560-892-00	PIN, CONNECTOR 4P

TRIMMER

CT001	1-404-134-00	TRAP, CERAMIC (5.5MHZ)

DIODE

D002	8-719-911-19	DIODE 1SS119
D003	8-719-911-19	DIODE 1SS119
D004	8-719-911-19	DIODE 1SS119
D005	8-719-911-19	DIODE 1SS119
D006	=>8-719-101-83	DIODE RD12EL2
D007	8-719-911-19	DIODE 1SS119
D008	8-719-911-19	DIODE 1SS119
D009	8-719-911-19	DIODE 1SS119
D010	8-719-911-19	DIODE 1SS119
D011	8-719-901-33	DIODE 1SS133
D012	8-719-901-33	DIODE 1SS133
D013	8-719-901-33	DIODE 1SS133
D014	8-719-901-33	DIODE 1SS133
D015	8-719-901-33	DIODE 1SS133
D016	8-719-901-33	DIODE 1SS133
D017	8-719-901-33	DIODE 1SS133
D018	8-719-901-33	DIODE 1SS133
D019	8-719-901-33	DIODE 1SS133
D020	8-719-901-33	DIODE 1SS133

Ref.No.	Part No.	Description	Remark
D021	8-719-901-33	DIODE 1SS133	
D022	8-719-901-33	DIODE 1SS133	
D023	8-719-911-19	DIODE 1SS119	
D024	8-719-911-19	DIODE 1SS119	
D025	8-719-911-19	DIODE 1SS119	
D026	8-719-911-19	DIODE 1SS119	
D027	8-719-911-19	DIODE 1SS119	
D028	8-719-911-19	DIODE 1SS119	
D029	8-719-911-19	DIODE 1SS119	
D030	8-719-911-19	DIODE 1SS119	
D031	8-719-911-19	DIODE 1SS119	
D032	8-719-911-19	DIODE 1SS119	
D033	8-719-911-19	DIODE 1SS119	
D034	8-719-911-19	DIODE 1SS119	
D035	8-719-901-33	DIODE 1SS133	
D036	8-719-901-33	DIODE 1SS133	
D037	8-719-901-33	DIODE 1SS133	
D038	8-719-901-33	DIODE 1SS133	
D039	8-719-901-33	DIODE 1SS133	
D040	8-719-901-33	DIODE 1SS133	
D041	8-719-901-33	DIODE 1SS133	
D042	8-719-901-33	DIODE 1SS133	
D043	8-719-901-33	DIODE 1SS133	
D044	8-719-901-33	DIODE 1SS133	
D045	8-719-901-33	DIODE 1SS133	
D046	8-719-901-33	DIODE 1SS133	

IC

IC001	8-759-276-07	IC TA7607AP
IC002	8-759-907-53	IC TDA2546
IC003	8-759-007-54	IC TDA4940
IC004	8-759-007-55	IC TDA4944
IC005	8-759-157-40	IC UPC574J
IC006	8-759-600-44	IC M54836AP

COIL

L001	1-408-593-00	MICRO INDUCTOR 1.5UH
L002	1-408-600-00	MICRO INDUCTOR 5.6UH
L003	1-408-600-00	MICRO INDUCTOR 5.6UH
L004	1-408-603-00	MICRO INDUCTOR 10UH
L006	1-408-597-00	MICRO INDUCTOR 3.3UH
L007	1-408-600-00	MICRO INDUCTOR 5.6UH
L008	1-407-494-00	MICRO INDUCTOR 1.5MMH
L009	1-408-615-00	MICRO INDUCTOR 100UH

TRANSISTOR

Q001	8-765-300-00	TRANSISTOR 2SC2009
Q002	8-769-200-30	TRANSISTOR 2SK107-3
Q003	=>8-729-245-83	TRANSISTOR 2SC2458
Q006	=>8-729-245-83	TRANSISTOR 2SC2458
Q007	=>8-729-245-83	TRANSISTOR 2SC2458
Q008	=>8-729-245-83	TRANSISTOR 2SC2458

When indicating parts by reference number, please include the board name.

TU-50

Ref.No.	Part No.	Description				Remark
Q009	=>8-729-245-83	TRANSISTOR 2SC2458				
Q010	=>8-729-245-83	TRANSISTOR 2SC2458				
Q011	=>8-729-204-83	TRANSISTOR 2SA1048GR				
Q012	=>8-729-204-83	TRANSISTOR 2SA1048GR				
Q013	8-729-245-83	TRANSISTOR 2SC2458				
Q014	8-729-988-12	TRANSISTOR 2SA881				
Q015	=>8-729-204-83	TRANSISTOR 2SA1048GR				
Q016	=>8-729-204-83	TRANSISTOR 2SA1048GR				
Q017	=>8-729-204-83	TRANSISTOR 2SA1048GR				
Q018	=>8-729-245-83	TRANSISTOR 2SC2458				
Q019	8-729-115-30	TRANSISTOR 2SK105A-30				
Q020	=>8-729-245-83	TRANSISTOR 2SC2458				
Q021	=>8-729-245-83	TRANSISTOR 2SC2458				
Q022	=>8-729-204-83	TRANSISTOR 2SA1048GR				
Q023	=>8-729-245-83	TRANSISTOR 2SC2458				
Q024	=>8-729-245-83	TRANSISTOR 2SC2458				
Q025	8-729-117-54	TRANSISTOR 2SA1175				
Q026	8-729-900-89	TRANSISTOR DTC144ES				
Q027	8-729-900-89	TRANSISTOR DTC144ES				
		RESISTOR				
R001	1-247-847-00	CARBON	4.7K	5%	1/6W	
R002	1-247-845-00	CARBON	3.9K	5%	1/6W	
R003	1-247-831-00	CARBON	1K	5%	1/6W	
R004	1-247-815-00	CARBON	220	5%	1/6W	
R005	1-246-457-00	CARBON	220	5%	1/4W	
R006	1-247-837-00	CARBON	1.8K	5%	1/6W	
R007	1-247-841-00	CARBON	2.7K	5%	1/6W	
R008	1-247-867-00	CARBON	33K	5%	1/6W	
R009	1-247-835-00	CARBON	1.5K	5%	1/6W	
R010	1-247-877-00	CARBON	82K	5%	1/6W	
R011	1-247-863-00	CARBON	22K	5%	1/6W	
R012	1-247-895-00	CARBON	470K	5%	1/6W	
R013	1-247-901-00	CARBON	820K	5%	1/6W	
R014	1-247-831-00	CARBON	1K	5%	1/6W	
R015	1-247-813-00	CARBON	180	5%	1/6W	
R016	1-247-807-00	CARBON	100	5%	1/6W	
R017	1-247-811-00	CARBON	150	5%	1/6W	
R018	1-247-809-00	CARBON	120	5%	1/6W	
R027	1-247-831-00	CARBON	1K	5%	1/6W	
R028	1-247-829-00	CARBON	820	5%	1/6W	
R029	1-247-829-00	CARBON	820	5%	1/6W	
R030	1-247-829-00	CARBON	820	5%	1/6W	
R031	1-247-855-00	CARBON	10K	5%	1/6W	
R032	1-247-863-00	CARBON	22K	5%	1/6W	
R033	1-247-849-00	CARBON	5.6K	5%	1/6W	
R034	1-247-875-00	CARBON	68K	5%	1/6W	
R035	1-247-875-00	CARBON	68K	5%	1/6W	
R036	1-247-875-00	CARBON	68K	5%	1/6W	
R037	1-247-875-00	CARBON	68K	5%	1/6W	
R038	1-247-877-00	CARBON	82K	5%	1/6W	
R039	1-247-869-00	CARBON	39K	5%	1/6W	
R040	1-247-875-00	CARBON	68K	5%	1/6W	
R041	1-247-875-00	CARBON	68K	5%	1/6W	
R042	1-247-831-00	CARBON	1K	5%	1/6W	
R043	1-247-821-00	CARBON	390	5%	1/6W	
R044	1-247-819-00	CARBON	330	5%	1/6W	
R045	1-247-831-00	CARBON	1K	5%	1/6W	
R046	1-247-863-00	CARBON	22K	5%	1/6W	
R047	1-247-871-00	CARBON	47K	5%	1/6W	
R048	1-247-849-00	CARBON	5.6K	5%	1/6W	
R049	1-247-855-00	CARBON	10K	5%	1/6W	
R050	1-247-855-00	CARBON	10K	5%	1/6W	
R051	1-247-855-00	CARBON	10K	5%	1/6W	
R052	1-247-859-00	CARBON	15K	5%	1/6W	
R053	1-247-859-00	CARBON	15K	5%	1/6W	
R054	1-246-475-00	CARBON	1.2K	5%	1/4W	
R055	1-246-475-00	CARBON	1.2K	5%	1/4W	
R056	1-247-831-00	CARBON	1K	5%	1/6W	
R057	1-247-831-00	CARBON	1K	5%	1/6W	
R058	1-247-872-00	CARBON	51K	5%	1/6W	
R059	1-247-872-00	CARBON	51K	5%	1/6W	
R060	1-247-857-00	CARBON	12K	5%	1/6W	
R061	1-247-857-00	CARBON	12K	5%	1/6W	
R062	1-247-831-00	CARBON	1K	5%	1/6W	
R063	1-247-863-00	CARBON	22K	5%	1/6W	
R066	**⚠1-212-944-00**	**FUSIBLE**	**2.7**	**5%**	**1/2W**	**F**
R067	1-247-841-00	CARBON	2.7K	5%	1/6W	
R068	**⚠1-206-670-00**	**METAL OXIDE**	**1.8K**	**5%**	**2W**	**F**
R069	1-247-865-00	CARBON	27K	5%	1/6W	
R070	1-247-879-00	CARBON	100K	5%	1/6W	
R071	1-247-871-00	CARBON	47K	5%	1/6W	
R072	1-247-871-00	CARBON	47K	5%	1/6W	
R073	1-247-847-00	CARBON	4.7K	5%	1/6W	
R074	1-247-831-00	CARBON	1K	5%	1/6W	
R075	1-247-859-00	CARBON	15K	5%	1/6W	
R076	1-247-855-00	CARBON	10K	5%	1/6W	
R077	1-247-859-00	CARBON	15K	5%	1/6W	
R078	1-247-855-00	CARBON	10K	5%	1/6W	
R079	1-247-859-00	CARBON	15K	5%	1/6W	
R080	1-247-855-00	CARBON	10K	5%	1/6W	
R081	1-247-831-00	CARBON	1K	5%	1/6W	
R082	1-247-855-00	CARBON	10K	5%	1/6W	
R083	1-247-900-00	CARBON	750K	5%	1/6W	
R084	1-247-895-00	CARBON	470K	5%	1/6W	
R085	1-247-883-00	CARBON	150K	5%	1/6W	
R086	1-247-867-00	CARBON	33K	5%	1/6W	
R087	1-247-895-00	CARBON	470K	5%	1/6W	
R088	1-247-871-00	CARBON	47K	5%	1/6W	
R089	1-247-871-00	CARBON	47K	5%	1/6W	
R090	1-247-859-00	CARBON	15K	5%	1/6W	
R091	1-247-855-00	CARBON	10K	5%	1/6W	
R092	1-247-863-00	CARBON	22K	5%	1/6W	
R093	1-247-863-00	CARBON	22K	5%	1/6W	
R094	1-247-863-00	CARBON	22K	5%	1/6W	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description	Remark
R095	1-247-855-00	CARBON 10K 5% 1/6W	
R096	1-247-849-00	CARBON 5.6K 5% 1/6W	
R097	1-247-855-00	CARBON 10K 5% 1/6W	
R098	1-247-831-00	CARBON 1K 5% 1/6W	
R099	1-247-843-00	CARBON 3.3K 5% 1/6W	
R100	1-247-863-00	CARBON 22K 5% 1/6W	
R101	1-247-863-00	CARBON 22K 5% 1/6W	
R102	1-247-863-00	CARBON 22K 5% 1/6W	
R103	1-247-863-00	CARBON 22K 5% 1/6W	
R104	1-247-863-00	CARBON 22K 5% 1/6W	
R105	1-247-855-00	CARBON 10K 5% 1/6W	
R106	1-247-863-00	CARBON 22K 5% 1/6W	
R107	1-247-863-00	CARBON 22K 5% 1/6W	
R108	1-247-863-00	CARBON 22K 5% 1/6W	
R109	1-247-881-00	CARBON 120K 5% 1/6W	
R110	1-247-859-00	CARBON 15K 5% 1/6W	
R111	1-247-807-00	CARBON 100 5% 1/6W	
R112	1-247-859-00	CARBON 15K 5% 1/6W	
R113	1-247-871-00	CARBON 47K 5% 1/6W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description	Remark
RV001	1-228-747-00	RES, ADJ, CARBON 4.7K	
RV002	1-228-753-00	RES, ADJ, CARBON 470K	
RV003	1-228-750-00	RES, ADJ, CARBON 47K	

SWITCH

Ref.No.	Part No.	Description	Remark
S001	1-516-226-00	SLIDE SWITCH	
S002	1-554-373-00	SWITCH, LEVER	

FILTER

Ref.No.	Part No.	Description	Remark
SWF001	1-404-438-00	FILTER, SAWF	

TRANSFORMER

Ref.No.	Part No.	Description	Remark
T001	1-404-476-00	COIL, IF	
T002	1-404-476-00	COIL, IF	
T003	1-404-427-00	VIFT	
T004	1-404-427-00	VIFT	
T005	1-404-477-00	COIL, IF	
T006	1-404-476-00	COIL, IF	

* * *

♠:1-611-042-00 MT-7 BOARD (AEP MODEL)

* * *

♠:1-610-400-00 MT-4 BOARD (UK MODEL)

* * *

♠:1-610-411-00 SW-27 BOARD (AEP MODEL)

VARIABLE RESISTOR

Ref.No.	Part No.	Description	Remark
RV601	1-230-122-00	RES, VAR, CARBON 100K	

SWITCH

Ref.No.	Part No.	Description	Remark
SW601	1-554-377-00	SWITCH, SLIDE	
SW602	1-554-377-00	SWITCH, SLIDE	

♠:1-610-412-00 SW-29 BOARD (UK MODEL)

DIODE

Ref.No.	Part No.	Description	Remark
D651	8-719-911-19	DIODE 1SS199	

VARIABLE RESISTOR

Ref.No.	Part No.	Description	Remark
RV651	1-230-122-00	RES, VAR, CARBON 100K	

SWITCH

Ref.No.	Part No.	Description	Remark
S651	1-554-377-00	SWITCH, SLIDE	
S652	1-554-166-00	SWITCH, SLIDE	

* * *

♠:1-609-227-00 CS-3 BOARD

CONNECTOR

Ref.No.	Part No.	Description	Remark
CN301	♠:1-564-029-00	PIN, CONNECTOR 4P	

SWITCH

Ref.No.	Part No.	Description	Remark
S301	1-554-241-00	SWITCH, LEVER	

* * *

♠:1-609-228-00 CS-4 BOARD

SWITCH

Ref.No.	Part No.	Description	Remark
S302	1-554-241-00	SWITCH, LEVER	

* * *

♠:1-606-794-00 N BOARD

CAPACITOR

Ref.No.	Part No.	Description	Remark
C001	1-123-617-00	ELECT 10MF 20% 16V	
C002	1-123-617-00	ELECT 10MF 20% 16V	
C003	1-123-617-00	ELECT 10MF 20% 16V	
C004	1-161-019-00	CERAMIC 0.033MF 10% 25V	
C005	1-108-567-00	MYLAR 0.0033MF 5% 50V	
C006	1-123-821-00	ELECT 47MF 20% 16V	

COMPOSITION CIRCUIT BLOCK

Ref.No.	Part No.	Description	Remark
CP001	1-232-234-00	COMPOSITION CIRCUIT BLOCK	

DIODE

Ref.No.	Part No.	Description	Remark
D001	8-719-110-32	DIODE PH302B	

IC

Ref.No.	Part No.	Description	Remark
IC001	8-759-113-73	IC UPC1373H	

COIL

Ref.No.	Part No.	Description	Remark
L001	1-404-310-00	COIL	

When indicating parts by reference number, please include the board name.

LM-8 | RD-6 | RD-7 | PS-23 | PS-22

Ref.No.	Part No.	Description				Remark
	•:1-605-071-21	LM-8 BOARD ***********				
		CAPACITOR				
C101	1-161-057-00	CERAMIC	0.033MF	10%	50V	
C102	1-161-057-00	CERAMIC	0.033MF	10%	50V	
		COIL				
L101	1-408-120-00	MICRO INDUCTOR 18UH				
L102	1-408-120-00	MICRO INDUCTOR 18UH				
		RESISTOR				
R101	1-206-479-00	METAL OXIDE	47	5%	2W	F

****

Ref.No.	Part No.	Description				Remark
	•:1-610-401-00	RD-6 BOARD **********				
	•:3-681-157-00	HOLDER, RD				
		DIODE				
D001	8-719-921-03	DIODE GP-2S02B				

****

Ref.No.	Part No.	Description				Remark
	•:1-610-402-00	RD-7 BOARD **********				
		DIODE				
D001	8-719-921-03	DIODE GP-2S02B				

****

Ref.No.	Part No.	Description				Remark
	•:1-610-409-00	PS-23 BOARD ***********				
	1-533-162-00	HOLDER, FUSE				
	⚠1-535-443-00	PIN, TERMINAL (AC CORD)				
		CAPACITOR				
C401	⚠1-130-710-00	FILM	0.1MF	20%	250V	
C406	1-125-298-00	ELECT(BLOCK)	10000MF	20%	25V	
C414	1-123-332-00	ELECT	47MF	20%	16V	
C415	1-123-332-00	ELECT	47MF	20%	16V	
		CONNECTOR				
CN403	•:1-560-891-00	PIN, CONNECTOR 3P				
CN405	•:1-560-891-00	PIN, CONNECTOR 3P				
CN407	•:1-560-890-00	PIN, CONNECTOR 2P				
		DIODE				
D401	8-719-505-20	DIODE S5VB20				
		FUSE				
F401	⚠1-532-203-00	FUSE, TIME-LAG T2A 250V				
F402	⚠1-532-237-00	FUSE, TIME-LAG T3.15A 250V				
		IC				
IC401	8-749-912-29	IC STR1229				
		RESISTOR				
R411	1-247-823-00	CARBON	470	5%	1/6W	

****

Ref.No.	Part No.	Description				Remark
	•:A-6728-809-A	PS-22 BOARD, COMPLETE *********************				
	•:1-610-408-13	PS-22 BOARD				
	1-533-162-00	HOLDER, FUSE				
	7-685-871-01	SCREW +BVTT	3X6	(S)		
		CAPACITOR				
C308	1-123-325-00	ELECT	2200MF	20%	16V	
C309	1-123-377-00	ELECT	470MF	20%	63V	
C311	1-123-375-00	ELECT	220MF	20%	63V	
C316	1-123-330-00	ELECT	22MF	20%	16V	
C319	1-123-330-00	ELECT	22MF	20%	16V	
C320	1-123-330-00	ELECT	22MF	20%	16V	
		CONNECTOR				
CN301	•:1-560-893-00	PIN, CONNECTOR 5P				
CN302	•:1-560-892-00	PIN, CONNECTOR 4P				
CN304	•:1-560-895-00	PIN, CONNECTOR 7P				
CN306	•:1-560-891-00	PIN, CONNECTOR 3P				
CN308	•:1-560-894-00	PIN, CONNECTOR 6P				
		DIODE				
D302	=>8-719-511-20	DIODE S1UB20				
D313	8-719-200-02	DIODE 10E-2				
D315	8-719-200-02	DIODE 10E-2				
D317	8-719-100-41	DIODE RD6.8EB2				
D318	8-719-100-44	DIODE RD7.5EB2				
		FUSE				
F304	⚠1-532-279-00	FUSE, TIME-LAG T0.5A 250V				
F306	⚠1-532-279-00	FUSE, TIME-LAG T0.5A 250V				
		TRANSISTOR				
Q301	8-729-103-33	TRANSISTOR 2SD1310-K				
Q302	8-729-178-54	TRANSISTOR 2SC2785				
Q303	8-729-178-54	TRANSISTOR 2SC2785				
Q306	8-729-178-54	TRANSISTOR 2SC2785				
Q307	8-729-103-33	TRANSISTOR 2SD1310-K				
Q308	8-729-103-33	TRANSISTOR 2SD1310-K				
Q309	8-729-178-54	TRANSISTOR 2SC2785				

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

RESISTOR

Ref.No.	Part No.	Description				Remark
R301	1-247-819-00	CARBON	330	5%	1/6W	
R302	1-247-842-00	CARBON	3K	5%	1/6W	
R303	1-247-862-00	CARBON	20K	5%	1/6W	
R304	1-247-831-00	CARBON	1K	5%	1/6W	
R305	1-247-847-00	CARBON	4.7K	5%	1/6W	
R306	1-247-857-00	CARBON	12K	5%	1/6W	
R308 ⚠	1-213-144-00	METAL OXIDE	1.2K	5%	1W	F
R310	1-247-855-00	CARBON	10K	5%	1/6W	
R313	1-244-885-00	CARBON	3.3K	5%	1/2W	
R313	1-244-885-00	CARBON	3.3K	5%	1/2W	
R314	1-247-865-00	CARBON	27K	5%	1/6W	
R315	1-247-847-00	CARBON	4.7K	5%	1/6W	
R316	1-247-852-00	CARBON	7.5K	5%	1/6W	
R341	1-535-143-21	LEAD, JUMPER (12.5MM)				
R342	1-535-143-21	LEAD, JUMPER (12.5MM)				

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♠: 1-610-403-13 TM-37 BOARD
****

CAPACITOR

Ref.No.	Part No.	Description				Remark
C001	1-123-382-00	ELECT	3.3MF	20%	50V	
C002	1-125-299-00	************	0.047F		0	
C004	1-102-959-00	CERAMIC	22PF	5%	50V	
C005	1-123-318-00	ELECT	33MF	20%	16V	
C006	1-123-342-00	ELECT	22MF	20%	35V	
C007	1-161-024-00	CERAMIC	0.082MF	10%	25V	
C008	1-161-772-11	CERAMIC	0.1MF	10%	25V	
C009	1-161-061-00	CERAMIC	0.068MF	10%	50V	
C011	1-161-772-11	CERAMIC	0.1MF	10%	25V	

CONNECTOR

Ref.No.	Part No.	Description	Remark
CN002	♠:1-560-891-00	PIN, CONNECTOR 3P	
CN004	♠:1-560-895-00	PIN, CONNECTOR 7P	
CN007	♠:1-564-027-00	PIN, CONNECTOR 2P	

DIODE

Ref.No.	Part No.	Description	Remark
D001	8-719-911-19	DIODE 1SS119	
D002	8-719-191-07	DIODE RD9.1E-B	
D005	8-719-812-31	DIODE TLR123	
D006	8-719-911-19	DIODE 1SS119	
D007	8-719-911-19	DIODE 1SS119	
D008	8-719-911-19	DIODE 1SS119	
D009	8-719-911-19	DIODE 1SS119	

IC

Ref.No.	Part No.	Description	Remark
IC001	8-759-101-63	UPD7519G-033	

TRANSISTOR

Ref.No.	Part No.	Description	Remark
Q005	=>8-729-245-83	TRANSISTOR 2SC2458	
Q006	=>8-729-245-83	TRANSISTOR 2SC2458	
Q007	=>8-729-204-83	TRANSISTOR 2SA1048-GR	

RESISTOR

Ref.No.	Part No.	Description				Remark
R001	1-247-875-00	CARBON	68K	5%	1/6W	
R004	1-247-903-00	CARBON	1M	5%	1/6W	
R006	1-247-831-00	CARBON	1K	5%	1/6W	
R007	1-247-879-00	CARBON	100K	5%	1/6W	
R008	1-247-863-00	CARBON	22K	5%	1/6W	
R009	1-247-867-00	CARBON	33K	5%	1/6W	
R010	1-247-867-00	CARBON	33K	5%	1/6W	
R011	1-247-872-00	CARBON	51K	5%	1/6W	
R012	1-247-843-00	CARBON	3.3K	5%	1/6W	
R013	1-247-879-00	CARBON	100K	5%	1/6W	
R014	1-247-879-00	CARBON	100K	5%	1/6W	
R015	1-247-879-00	CARBON	100K	5%	1/6W	
R016	1-247-879-00	CARBON	100K	5%	1/6W	
R017	1-247-868-00	CARBON	36K	5%	1/6W	
R018	1-247-886-00	CARBON	200K	5%	1/6W	
R019	1-247-874-00	CARBON	62K	5%	1/6W	
R020	1-247-869-00	CARBON	39K	5%	1/6W	
R021	1-247-879-00	CARBON	100K	5%	1/6W	
R022	1-247-855-00	CARBON	10K	5%	1/6W	
R023	1-247-855-00	CARBON	10K	5%	1/6W	
R024	1-247-855-00	CARBON	10K	5%	1/6W	
R025	1-247-855-00	CARBON	10K	5%	1/6W	
R026	1-247-855-00	CARBON	10K	5%	1/6W	
R027	1-247-855-00	CARBON	10K	5%	1/6W	
R028	1-247-855-00	CARBON	10K	5%	1/6W	
R029	1-247-855-00	CARBON	10K	5%	1/6W	
R030	1-247-855-00	CARBON	10K	5%	1/6W	
R032	1-247-855-00	CARBON	10K	5%	1/6W	

TRIMMER

Ref.No.	Part No.	Description	Remark
TC001	1-141-022-11	CAP, TRIMMER, CERAMIC	

CRYSTAL

Ref.No.	Part No.	Description	Remark
X001	1-527-647-00	OSCILLATOR, CRYSTAL	

****

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description	Remark
	●:1-610-404-13	TM-38 BOARD ************	
	●:2-364-740-00	HOLDER, LED	

DIODE

Ref.No.	Part No.	Description	Remark
D101	8-719-911-19	DIODE 1SS119	
D102	8-719-812-31	DIODE TLR123	
D103	8-719-812-31	DIODE TLR123	
D104	8-719-812-31	DIODE TLR123(AEP MODEL)	
D105	8-719-812-31	DIODE TLR123(AEP MODEL)	

INDICATOR TUBE

Ref.No.	Part No.	Description	Remark
FL101	1-519-295-00	INDICATOR TUBE, FLUORESCENT	

RESISTOR

Ref.No.	Part No.	Description	Remark
R101	1-247-819-00	CARBON 330 5% 1/6W	

SWITCH

Ref.No.	Part No.	Description	Remark
S101	1-553-997-00	SWITCH, KEY BOARD	
S102	1-553-997-00	SWITCH, KEY BOARD	
S103	1-553-997-00	SWITCH, KEY BOARD	
S104	1-554-375-00	SWITCH, PUSH(AEP MODEL)	

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Ref.No.	Part No.	Description	Remark
	●:1-610-405-00	TM-39 BOARD ***********	
	●:3-670-095-00	HOLDER, LED	

DIODE

Ref.No.	Part No.	Description	Remark
D212	8-719-812-31	DIODE TLR123	

RESISTOR

Ref.No.	Part No.	Description	Remark
R201	1-247-815-00	CARBON 220 5% 1/6W	

SWITCH

Ref.No.	Part No.	Description	Remark
S201	1-553-997-00	SWITCH, KEY BOARD	
S203	1-553-997-00	SWITCH, KEY BOARD	
S204	1-553-997-00	SWITCH, KEY BOARD	
S205	1-553-997-00	SWITCH, KEY BOARD	
S206	1-553-997-00	SWITCH, KEY BOARD	
S207	1-553-997-00	SWITCH, KEY BOARD	
S208	1-553-997-00	SWITCH, KEY BOARD	
S209	1-553-997-00	SWITCH, KEY BOARD	
S210	1-553-997-00	SWITCH, KEY BOARD	
S211	1-553-997-00	SWITCH, KEY BOARD	

****

Ref.No.	Part No.	Description	Remark
	●:1-610-407-00	CH-36 BOARD ***********	

SWITCH

Ref.No.	Part No.	Description	Remark
S501	1-553-997-12	SWITCH, KEY BOARD	
S502	1-553-997-12	SWITCH, KEY BOARD	
S503	1-553-997-12	SWITCH, KEY BOARD	
S504	1-553-997-12	SWITCH, KEY BOARD	
S505	1-553-997-12	SWITCH, KEY BOARD	
S506	1-553-997-12	SWITCH, KEY BOARD	
S507	1-553-997-12	SWITCH, KEY BOARD	
S508	1-553-997-12	SWITCH, KEY BOARD	
S509	1-553-997-12	SWITCH, KEY BOARD	
S510	1-553-997-12	SWITCH, KEY BOARD	
S511	1-553-997-12	SWITCH, KEY BOARD	
S512	1-553-997-12	SWITCH, KEY BOARD	

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MISCELLANEOUS

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Ref.No.	Part No.	Description	Remark
	⚠1-463-350-00	TUNER (BT-881) (AEP MODEL)	
	⚠1-463-371-00	TUNER (BT-882) (UK MODEL)	
	⚠1-464-270-00	BOOSTER, RF MODULATOR(RFU-808) (AEP MODEL)	
	⚠1-464-274-00	BOOSTER, RF MODULATOR(RFU-809) (UK MODEL)	
	⚠1-534-817-XX	CORD, POWER (AEP MODEL)	
	⚠1-551-884-00	CORD, POWER (UK MODEL)	
	A-6761-064-A	ACE ASSY (AUDIO ERASE CTL)	
	1-541-163-00	MOTOR	
	●:1-555-110-00	CABLE, PIN	
	8-825-508-10	HEAD, FE	
L901	1-464-249-00	SENSOR, S COIL	
L902	1-464-250-00	SENSOR, T COIL	
M902	8-838-048-00	MOTOR, DC (BHF-1908A)	
M903	A-4910-021-A	R STATOR BOARD, COMPLETE (REEL MOTOR)	
M904	A-6737-118-A	MOTOR ASSY, L (LOADING MOTOR)	
PM901	1-454-348-31	SOLENOID, BRAKE PLUNGER	
PM902	1-454-349-00	SOLENOID, PLUNGER	
S901	1-554-374-00	SWITCH, LEVER (REC PROOF)	
S902	1-554-374-00	SWITCH, LEVER (CASSETTE IN)	
S903	1-553-539-00	SWITCH, MICRO (LOADING END)	
S904	1-553-718-00	SWITCH, MICRO (UNLOADING END)	
T901	⚠1-447-614-00	TRANSFORMER, POWER	

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ACCESSORIES AND PACKING MATERIALS

****

Part No.	Description	Remark
A-6765-177-A	COMMANDER ASSY RMT-216S(SILVER)(UK MODEL)	
A-6765-199-A	COMMANDER ASSY RMT-216G(GRAY)(AEP MODEL)	
1-551-513-00	CABLE, COAXAL ASSY	
1-556-893-00	CORD ASSY, COAXIAL	
3-660-986-00	SHEET, PROTECTION	
3-671-873-00	CASE, ACCESSORY	
3-675-581-00	LID, CASE, ACCESSORY	
3-681-190-00	SHEET (LARGE), PROTECTION	
3-681-192-00	CUSHION (UPPER)	
3-681-193-00	CUSHION (LOWER)	
3-681-214-00	INDIVIDUAL CARTON (UK MODEL)	
3-681-239-00	INDIVIDUAL CARTON (AEP MODEL)	
3-701-007-00	BAND, BINDING	
3-773-433-41	MANUAL, INSTRUCTION (AEP MODEL)	
3-773-584-51	MANUAL, INSTRUCTION (UK MODEL)	
3-701-630-00	BAG, POLYETHYLENE	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

RMT-216

SERVICE MANUAL

PICTURE SEARCH
SONY
REMOTE COMMANDER RMT-216

SPECIFICATIONS

Remote control system	Infrared control
Power requirements	3V dc, 2 IEC designation R6 batteries (size AA)
Dimensions	Approx. 65 × 20 × 153 mm (w/h/d) $(2^{5}/_{8} \times {}^{13}/_{16} \times 6^{1}/_{8}$ inches) incl. projecting parts and controls
Weight	Approx. 140 g (5 oz) incl. batteries

REMOTE COMMANDER

SONY®

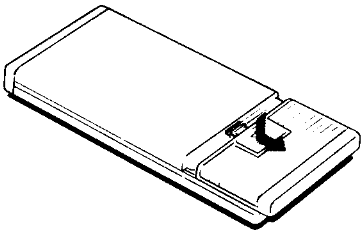
ACC

1. REMOTE CONTROL OPERATION

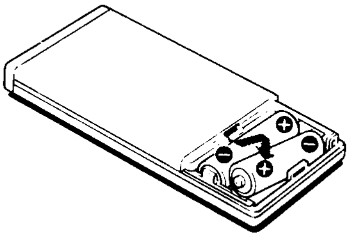
You can control almost all the functions of the this video cassette recorder from your armchair using the supplied remote control unit.

BATTERY INSERTION

1 Open the lid.



2 Insert two IEC designation R6 batteries (size AA) with correct polarity.



3 Close the lid firmly.

Notes on the remote control unit

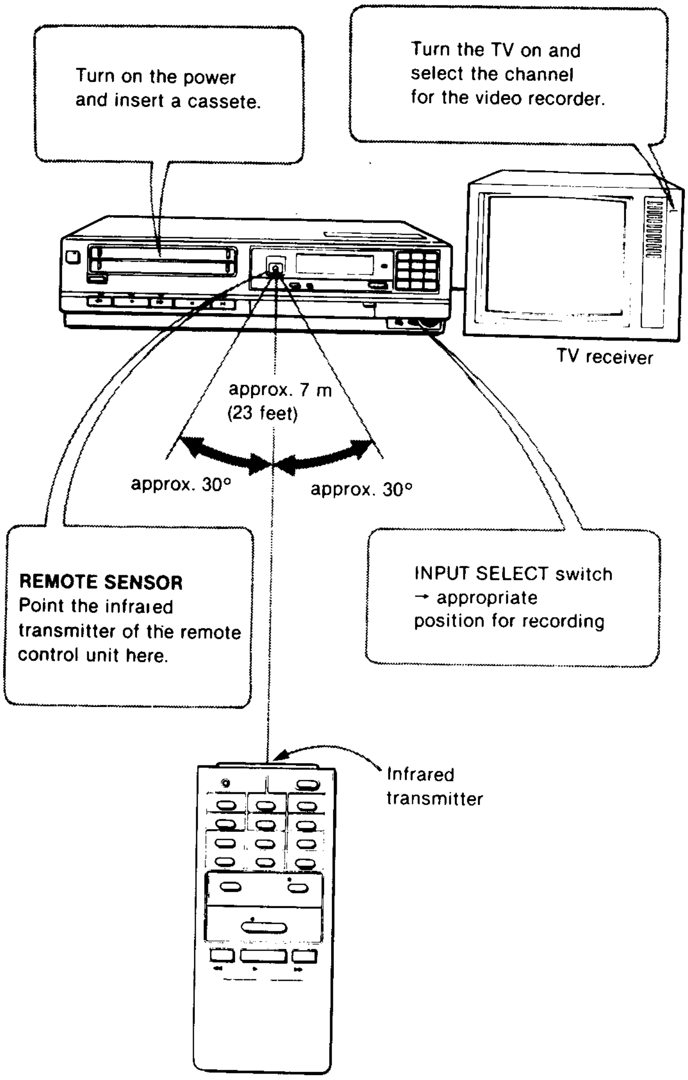
- Avoid dropping foreign objects into the cabinet, particularly when replacing batteries.
- Keep the unit away from extremely hot or humid places.
- Avoid mechanical shock to the unit.
- This remote control unit may be used only with this video cassette recorder.

Battery life

In normal operation, batteries will last for about six months. If the range of the remote control unit becomes noticeably short, replace the batteries with new ones. When the batteries are exhausted, the remote function indicator will not light when the buttons on the control unit are pressed.

If the remote control unit is not to be used for a long period of time, remove the batteries to avoid possible damage from battery leakage.

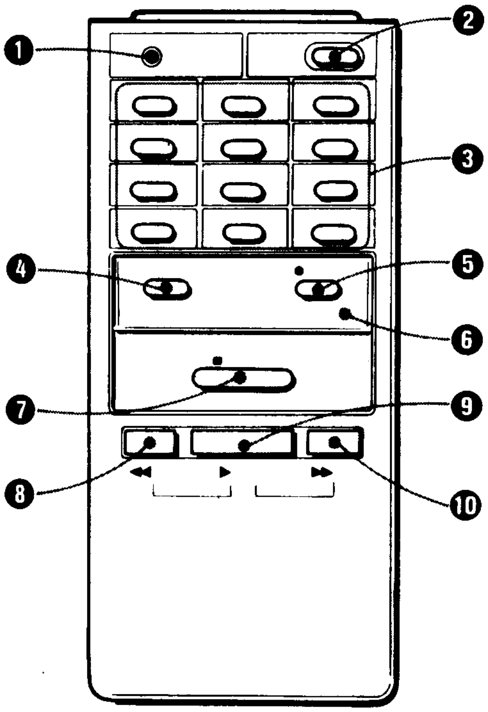
PREPARATION


Turn on the power and insert a cassete.
Turn the TV on and select the channel for the video recorder.
TV receiver
approx. 7 m (23 feet)
approx. 30°
approx. 30°
REMOTE SENSOR
Point the infraied transmitter of the remote control unit here.
INPUT SELECT switch → appropriate position for recording
Infrared transmitter

Notes

- There should be no obstacles between the remote control unit and the remote control detector of the recorder.
- The shorter the distance between the remote control unit and the recorder, the wider the angle within which the recorder can be controlled.

FUNCTION OF THE BUTTONS



❶ Remote function indicator
Lights up when any of the buttons on the remote control unit are pressed.

❷ ON button
Press to turn the power on. To turn it off, press again.

❸ Programme select buttons
Press to select a programme to be viewed or to be recorded.

❹ ▮▮ PAUSE button
Press to stop the tape momentarily. To resume the previous mode, press it again.

❺ ● REC button
Press to start recording.

❻ Sliding cover
During playback, slide this cover over the record button to prevent accidental recording. During recording, slide this cover down to prevent accidental interruption of recording.

❼ ■ STOP button
Press to stop the tape.

❽ ◄◄ REW button
Press to rewind the tape. Used also for reverse picture search operation during playback and for skip scan operation during rewinding.

❾ ► PLAY button
Press to play the tape back.

❿ ►► FF button
Press to advance the tape rapidly. Used also for forward picture search operation during playback and for skip scan operation during fast forward mode.

OPERATION

Recording

1 Select the channel to be recorded with the programme select button.
2 Press the ● REC button. The recording will begin.
To stop recording, press the ■ STOP button.

Playback

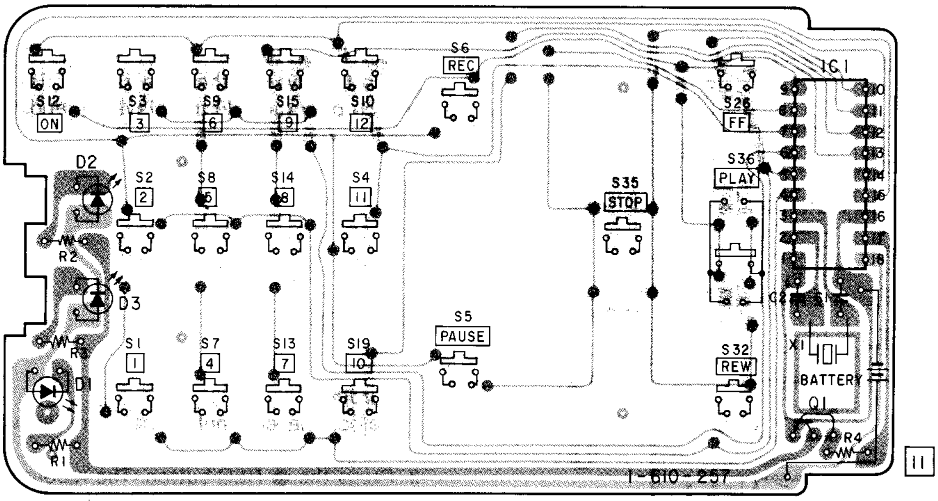
Press the ► PLAY button. Playback will begin.
To stop playback, press the ■ STOP button.

A B C D E F G

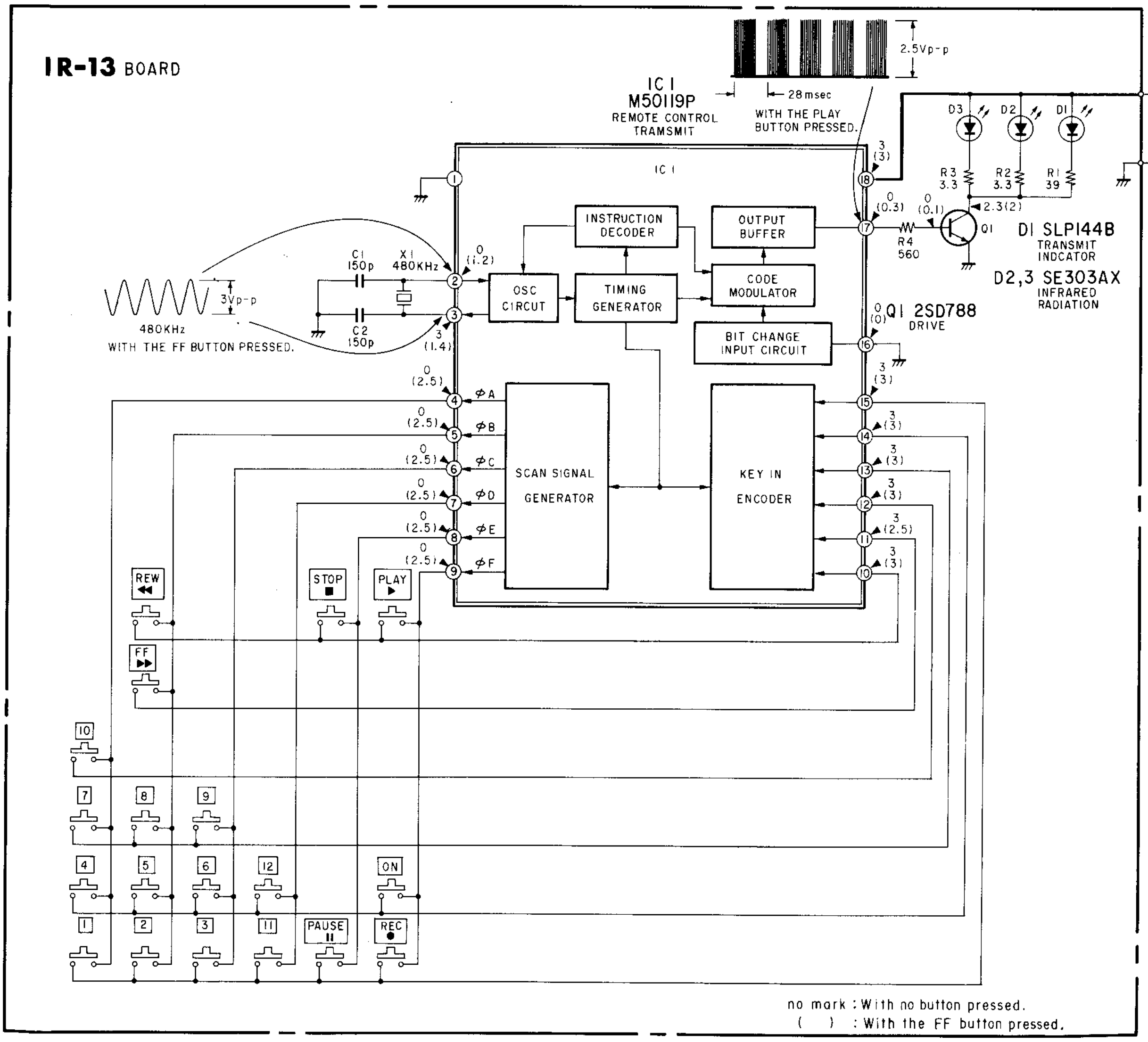
1 2 3 4 5 6 7 8 9 10

2. PRINTED WIRING BOARD

[IR-13 BOARD]


S12
ON
S3
3
S9
6
S15
9
S10
12
S6
REC
IC1
S26
FF
S36
PLAY
D2
S2
2
S8
5
S14
8
S4
11
S35
STOP
R2
D3
S5
PAUSE
S1
1
S7
4
S13
7
S19
10
S32
REW
R3
D1
X1
BATTERY
Q1
R4
R1
C2
1-610-257
11

3. SCHEMATIC DIAGRAM


IR-13 BOARD
2.5Vp-p
28msec
WITH THE PLAY BUTTON PRESSED.
IC1
M50119P
REMOTE CONTROL TRAMSMIT
IC1
INSTRUCTION DECODER
OUTPUT BUFFER
OSC CIRCUT
TIMING GENERATOR
CODE MODULATOR
BIT CHANGE INPUT CIRCUIT
SCAN SIGNAL GENERATOR
KEY IN ENCODER
ΦA
ΦB
ΦC
ΦD
ΦE
ΦF
C1 150p
X1 480KHz
C2 150p
3Vp-p
480KHz
WITH THE FF BUTTON PRESSED.
0 (1.2)
3 (1.4)
0 (2.5)
3 (3)
0 (0.3)
0 (0.1)
2.3(2)
0 (0)
3 (2.5)
R4 560
Q1
D3
D2
D1
R3 3.3
R2 3.3
R1 39
BATTERY SIZE "AA"
(IEC DESIGNATION R6)
2PCS 3V
D1 SLP144B
TRANSMIT INDCATOR
D2,3 SE303AX
INFRARED RADIATION
Q1 2SD788
DRIVE
REW
FF
STOP
PLAY
10
7
8
9
4
5
6
12
ON
1
2
3
11
PAUSE
REC

no mark : With no button pressed.
( ) : With the FF button pressed.

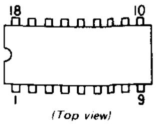
- All resistors are in ohms, 1/6W unless otherwise noted.
- All capacitors are in μF (p:pF) unless otherwise noted.
  50V or less are not indicated except for electrolytic capacitors.
- — : B + bus.

The voltage value is measured using a digital tester (10MΩ/V).

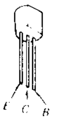
When indicating parts by reference number, please include the board name.

- ○— indicates a lead wire mounted on the component side.
- ●— indicates a lead wire mounted on the printed side.
- ▓ Conductor side (inner)
- ░ Conductor side
- ▒ B + pattern

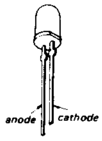
M50119P



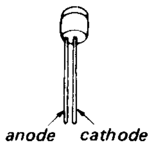
2SD788



SE303AX



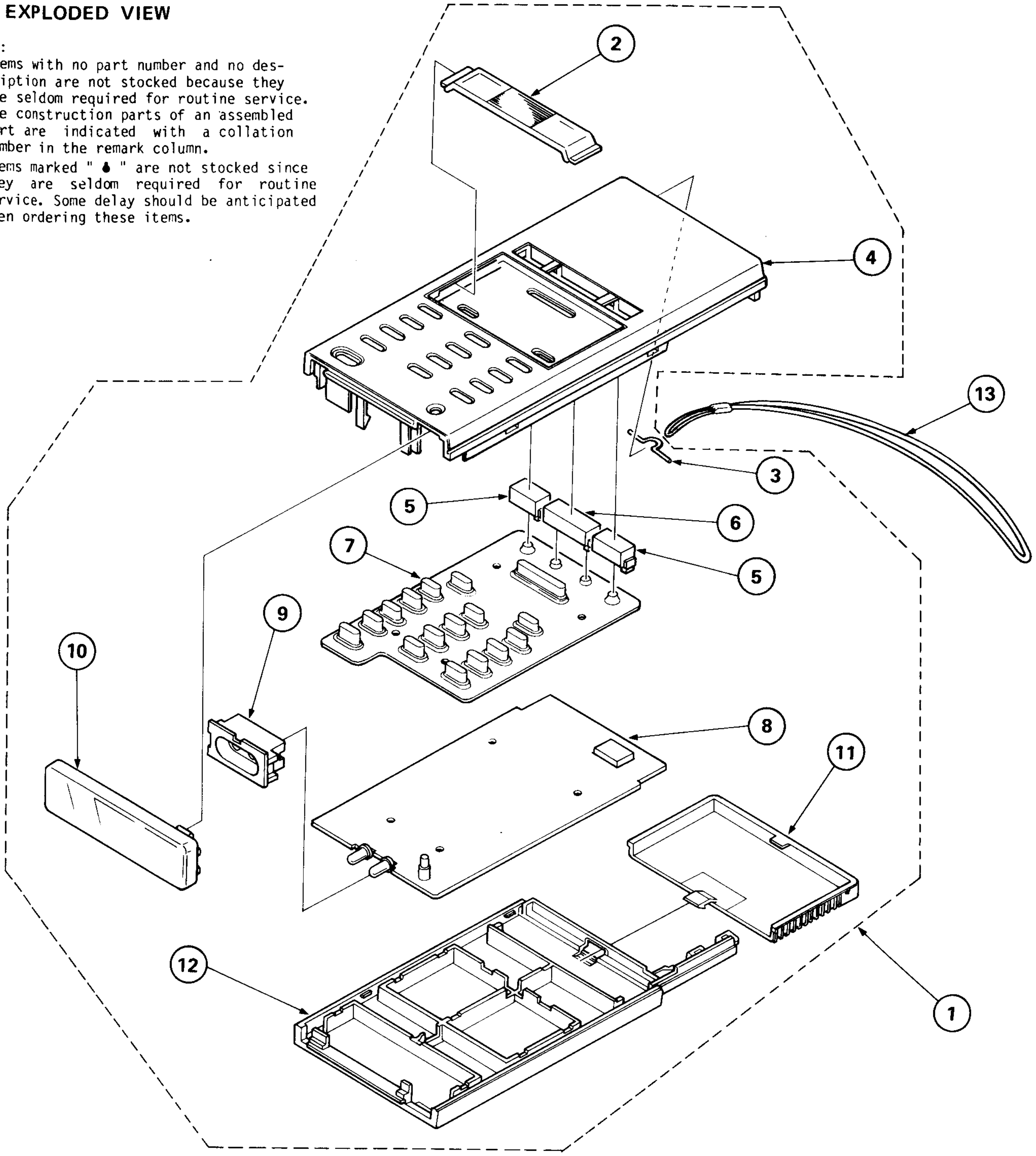
SLP144B



4. EXPLODED VIEW

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ♠ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



No.	Part No.	Description	Remark
1	A-6765-177-A	COMMANDER ASSY (UK MODEL/SILVER)	
	A-6765-199-A	COMMANDER ASSY (AEP MODEL/GRAY)	
2	2-290-603-00	CURSOR	
3	♠:2-290-630-00	STOPPER, HOLDER	
4	X-2290-616-0	CASING ASSY (L/G) (AEP MODEL/GRAY)	
	X-2374-604-0	CASING (L) ASSY (UK MODEL/SILVER)	
5	2-290-633-00	PUSH BUTTON (M)	
6	2-290-632-00	PUSH BUTTON (L)	
7	2-374-636-00	RUBBER (L), CONTACT	
8	♠:1-610-257-00	IR-13 BOARD	
9	2-298-402-00	MIRROR	
10	2-290-608-00	PLATE, FROSTED	
11	2-290-606-00	COVER, BATTERY (UK MODEL/SILVER)	
	2-290-606-11	COVER, BATTERY (AEP MODEL/GRAY)	
12	2-290-611-00	CASE, LOWER (UK MODEL/SILVER)	
	2-290-611-11	CASE, LOWER (AEP MODEL/GRAY)	
13	4-352-958-00	STRAP, HAND	

5. ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- =>: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

- Items marked " ♠ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS
- MF : μF, PF : μμF

RESISTORS
- All resistors are in ohms
- F : nonflammable

COILS
- MMH : mH, UH : μH

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description				Remark
	♠:1-610-257-00	IR-13 BOARD ***********				
	2-290-601-00	TERMINAL (A), BATTERY				
	2-290-602-00	TERMINAL (B), BATTERY				
		CAPACITOR				
C1	1-102-108-00	CERAMIC	150PF	10%	50V	
C2	1-102-108-00	CERAMIC	150PF	10%	50V	
		DIODE				
D1	=> 8-719-193-03	DIODE SE303AX				
D2	8-719-193-03	DIODE SE303AX				
D3	=> 8-719-901-44	DIODE SLP144B				
		IC				
IC1	8-759-600-07	IC M50119P				
		TRANSISTOR				
Q1	8-729-378-84	TRANSISTOR 2SD788				
		RESISTOR				
R1	1-247-797-00	CARBON	39	5%	1/6W	
R2	1-247-771-00	CARBON	3.3	5%	1/6W	
R3	1-247-771-00	CARBON	3.3	5%	1/6W	
R4	1-247-825-00	CARBON	560	5%	1/6W	
		CRYSTAL				
X1	1-527-476-00	OSCILLATOR, CERAMIC				